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Railway Age

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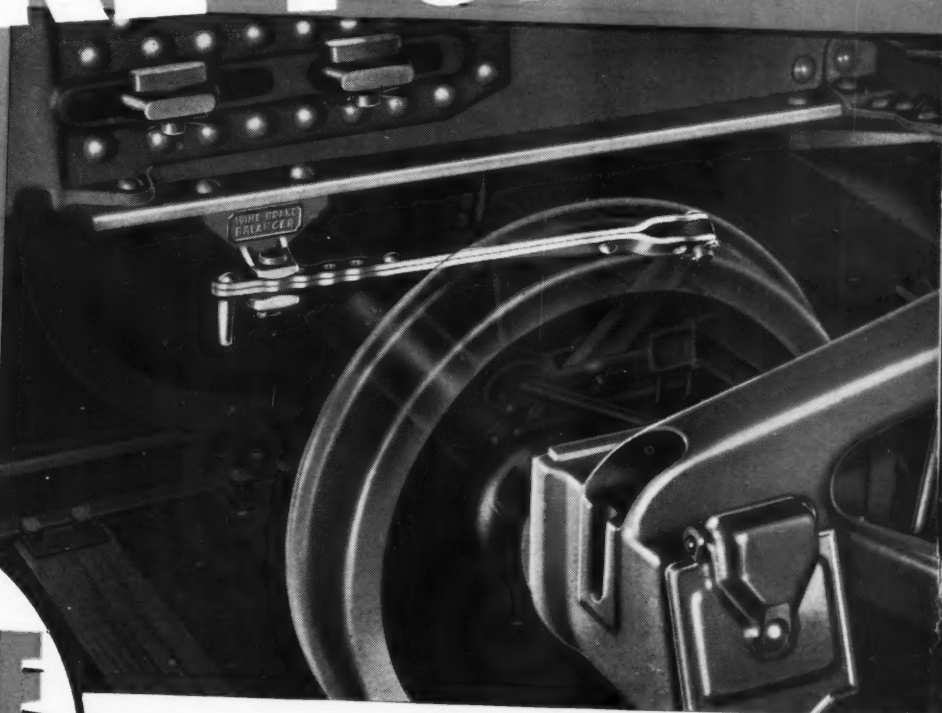
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Railway Age

With which are incorporated the Railway Review, the Railroad Gazette and the Railway Age-Gazette. Name registered U. S. Patent Office.

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In This Issue

Overcome Many Complications in Long Grade-Separation Project.....

Page

307

C. & N. W. and C., N. S. & M. bore in mind property values in residential Winnetka, Ill., when they approached this \$4,280,000 job. While safety was a consideration (tracks were both depressed and raised for 3.51 miles), there was also the "question of aesthetics"—and it was sought to improve dirt and noise conditions as well as appearance.

Finding Out Whether the Engine Will Do a Particular Job

314

A. P. Millan and T. F. Perkinson, of General Electric's transportation division, herein suggest the use of nomographic charts as a short-cut for determining whether or not a Diesel-electric switcher, with known conditions of grade and length of grade, can handle safely a given train.

N. Y. C. Installs Interlocking at Utica

317

Old 146-level unit-lever machine is replaced by the "entrance-exit" control, which type necessitates only the pressing of an entrance or exit button on the track where movement is desired. Proper switches then operate and the signals clear automatically.

EDITORIALS

Passenger Traffic Profitability	303
The Pullman Monopoly Case	304
Roadway Deterioration	306
Train-Talkie	306

GENERAL ARTICLES

Overcome Many Complications in Long Grade-Separation Project, by Robert L. Anderson	307
M. R. S. Unit Assembles 30 Cars Per Day	311
Research on the Missouri Pacific, by W. H. Hobbs	312
R. R. Jobs Have Edge on Those in Industry	313
Finding Out Whether the Engine Will Do a Particular Job, by A. P. Millan and T. F. Perkinson	314
Sees Lumber Dearth	316
N. Y. C. Installs Interlocking at Utica, by R. B. Elsworth	317
What Policy on Depreciation? by G. B. McMillen	319

COMMUNICATION

322

RAILROADS-IN-WAR NEWS.....

323

GENERAL NEWS.....

327

The Railway Age is indexed by the Industrial Arts Index and also by the Engineering Index Service



PRINTED IN U. S. A.

***After the caboose
trails this spring switch***



***... the points are restored to normal
and locked for main-line moves!***

TO ELIMINATE slow orders at spring switch locations and expedite traffic with safety, many railroads are installing "Union" Mechanical Facing Point Locks to provide the equivalent of interlocking protection for main-line train movements.

Trailing moves against the closed point are made at speeds consistent with the turnouts employed. When a train trails a switch, the flexing of the switch points causes the automatic unlock

of the lock bar to permit the trailing movement.

After the train has cleared the spring switch, the points are returned to their normal position and a powerful spring restores the locking plunger of the mechanical facing point lock in the notch of a standard lock bar. A built-in circuit controller checks the locking plunger and the points of the switch to insure that they are in their proper positions for the safety of subsequent train movements.

UNION SWITCH & SIGNAL COMPANY

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The Week at a Glance

PULLMAN CASE: Developments in the government's anti-trust proceeding against Pullman, Inc., raise very serious questions as to who is to furnish future sleeping-car services; and as to whether the efficiency of the service is to be greatly impaired, or its costs and rates greatly increased. These issues are discussed in one of the editorials which takes the position that sleeping-car operation is and should be treated as a natural monopoly. Hope is expressed that the Supreme Court will not affirm the lower court findings, but will decide, in effect, that the anti-trust law does not violate common sense.

COMMUTER COST GAGE: The I. C. C.'s Bureau of Transport Economics and Statistics has brought out a formula for determining costs of railroad suburban and commutation services. Provision is made for the calculation of out-of-pocket and fully distributed expenses, and their comparison with revenues from the services involved. The Bureau calls the formula Rail-Commutation, 10-43, and publishes it in Statement No. 441.

CRYING FOR CARS: Northwest grain and potato shippers made themselves heard at last week's Minneapolis meeting of the Northwest Shippers Advisory Board. The potato shippers, as our news report puts it, were "particularly vociferous" in their demands for refrigerator cars; while the Board adopted a "strong resolution" calling for modification of that A. A. R. rule which, in time of shortage, distributes available cars on an equal basis to all country elevators, regardless of their size. A. A. R. representatives gave assurances that the carriers are alive to the seriousness of the situation, citing the outstanding Car Service Division order requiring prompt return to the Northwest of empties suitable for grain loading.

GOOD INVESTMENT: The Treasury Department's War Bond salesmen have gone after the "windfall" coming to railroad employees in the form of retroactive pay increases resulting from the recent wage settlement. Secretary Morgenthau has urged railroad presidents and union officials to cooperate in persuading the employees to invest as much as possible of the back pay in War Bonds during the current fourth war loan drive. His appeal to the patriotism of the men was accompanied by his suggestion that such use of the money would "reduce inflationary spending on the home front."

PASSENGER PROFITS: Railroad passenger operations can best serve the public interest, and that of the carriers as well, if efforts and resources are concentrated on schedules for which experience shows a growing popular demand. So says this issue's leading editorial, as it points out that, before the abnormal wartime traffic arrived, the key to a healthy revival of passenger business had been found in the program of attractive rates and services which brought increased train-mile earnings. With train-mile earnings

in excess of train-mile costs the focal point of success with passenger traffic, it follows that all train services which low rates and convenient accommodations cannot fill to a profitable load should be abandoned. The railroads, no longer enjoying the advantages of a monopoly in the travel market, cannot continue indefinitely assuming the obligations of that status.

TIGHT REEFER SUPPLY: With the supply of refrigerator cars "becoming tighter with each day's loading," the O.D.T. has called for drastic curtailment in their use by all shippers during the next two months to alleviate shortages in perishable food producing states. On something like an "or else" basis, the shippers of beer, wine, and canned goods, especially, have been asked to reduce their requirements for reefers. They've been told that voluntary action "may avoid the imposition of an I.C.C. service order."

BACK IN MUFTI: Six of the seven railroad presidents who were commissioned colonels in the Army when the government took over were retired to private life on January 31—subject to recall in case of emergency. Col. R. B. White, president of the Baltimore & Ohio, remains in uniform, but he is scheduled to don "civies" again February 10 when roads in his territory are expected to have completed the execution of releases freeing the government from liability with respect to claims arising during the period of Army control.

WOMAN'S PLACE: She should have about 12 places out of every 100 on a railroad's total payroll, according to a survey issued by the O.D.T.'s Division of Transport Personnel. That ratio prevails on the four principal roads, and if all others attained it the number of women in the employ of Class I carriers would increase from 100,000 to 164,000. Intended to provide a "realistic basis for increased utilization of women," the survey includes lists of jobs suitable for women and a program for getting them to work for a railroad.

M. P. RESEARCH: The Missouri Pacific has developed a form of centralized research wherein inquiry is systematized by a plan designed to secure the advantages, and forestall the disadvantages, of both the centralized and the officer-committee methods. The road's director of research, W. H. Hobbs, tells about it in one of this issue's feature articles. Two post-war-planning investigations are now under way—a study of commodity traffic trends on the M. P., and an analysis of reconversion prospects of its territory's war-developed industry.

DIESEL GRAPHICS: A. P. Millan and T. F. Perkinson of the General Electric Company's Transportation Division have found that the suitability of Diesel-electric switchers for specific applications may be determined quickly by means of nomographic charts. They have collaborated to explain the short-cut method in one of this issue's illustrated feature articles.

SLOW ORDERS?: After last week's meeting of the A.A.R.'s board of directors, it was denied that O.D.T. representatives attending had said anything which might be construed as a complaint that the railroads are not ordering enough rolling stock, now that the materials situation has eased. A technical denial, possibly, for the board's session was followed by the call for this week's special member-road meeting on the matter of what equipment the carriers may need.

DE-VINSONIZER: The House Committee on interstate and foreign commerce this week reported favorably a rewritten Truman-Crosser resolution which would relieve Economic Stabilization Director Vinson of his function of determining whether or not wage adjustments reached through the operation of Railway Labor Act procedures are in conformity with the government's stabilization program. The Senate-approved version had become obsolete, for it was cast in specific terms giving Congressional sanction to the straight eight-cent-per-hour increase demanded by non-operating employees before they were persuaded by accompanying "in lieu" to accept a "non-inflationary" though more profitable sliding-scale adjustment.

TALKING SENSE: The Mountain-Pacific States Conference of Public Service Commissions has put itself on record in favor of repealing remaining provisions of the land-grant-rate law, and in opposition to the uniform rate bills pending in Congress. The resolutions, set out in a news story herein, call the land-grant deductions unfair to civilian shippers and warn of "violent economic dislocations" which would follow arbitrary fixation of nationally uniform freight rates.

UTICA INTERLOCKING: The electric interlocking at the west end of the New York Central's Utica, N. Y., passenger station was destroyed by a derailment of a freight train on February 13, 1943. Speedy repairs were made to keep trains moving, while the General Railroad Signal Company got on the job of filling in record time the replacement order for a new machine of the entrance-exit type. It was installed in complete working order by July 25—a little more than five months after the derailment. How it was done is told in an illustrated feature article by N. Y. C. Signal Engineer R. B. Elsworth.

WINNETKA CROSSINGS: A \$4,280,000 railway-highway grade separation project 3.51 miles in length has been completed on the lines of the Chicago & North Western and Chicago, North Shore & Milwaukee at Winnetka, Ill. It is described herein by Robert L. Anderson, Winnetka's superintendent of public works. Considerations of aesthetics determined the plans which were designed to conserve property values and enhance the residential desirability of the community, a Chicago suburb populated largely by business and professional people who commute on the two roads involved.

DREADNAUGHT ENDS

PROVIDE

STRENGTH—

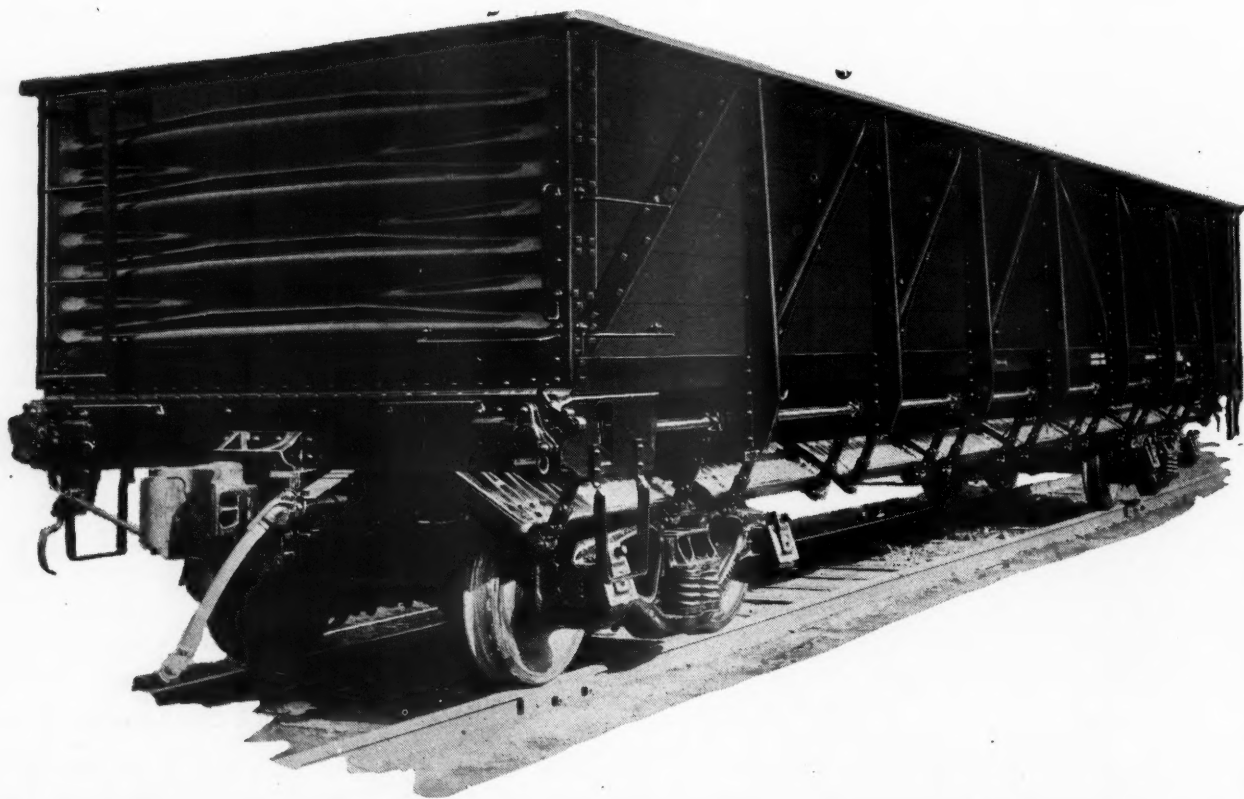
UNIFORM OVER ENTIRE SURFACE.

RUGGEDNESS

A MUST, WITH INCREASED LOADS AND SPEEDS.

RESILIENCY

**TO CUSHION SHIFTING LOAD SHOCKS
AND PROTECT CAR SUPERSTRUCTURE.**



STANDARD RAILWAY EQUIPMENT MFG. COMPANY

HAMMOND, INDIANA

WORKS: HAMMOND, INDIANA

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CHICAGO OFFICE — 310 S. MICHIGAN AVE.

RAILWAY AGE

Passenger Traffic Profitability

Most railroad men who are familiar with passenger traffic are not unduly alarmed at the railways' post-war prospects for retaining and adding to their participation in this class of business, despite the fact that competition by air and highway promises to be vigorous and resourceful. Leaving present abnormal travel by rail out of account, the figures show that, prior to the war, the railroads had definitely found the key (i.e., attractive rates and service) to a healthy revival in their passenger business. From the bottom of the depression in 1932, to 1941, the railroads enjoyed an increase of 111 per cent in the volume (passenger-miles) of their non-commutation passenger traffic, while during this same period there was an increase of 38 per cent in passenger automobiles registered, and a constant improvement in highways. What, it may well be asked, is competition likely to do to railway passenger traffic in the decade following the war that an increase of 7,000,000 automobiles and constantly improved highways were not able to do to it in the decade immediately preceding the war? Provided, of course, the railways are as alert, compared to their competitors, after the war as they were before the war.

The gage of profitability of passenger service (passenger operating ratio) is not a satisfactory measure of the earnings of this service, compared to freight, because of the arbitrary assignment of common expenses. Fluctuations in this ratio, from year to year, however, are significant, as showing whether this business is growing more profitable or less profitable. This ratio was 90 in 1929 and 114 in 1941, indicating that, from a standpoint of net revenue, passenger service in the last pre-war year had still not recovered its pre-depression status. The reason is not far to seek—it lies in the continued operation of many trains which, even with low rates, cannot possibly attract enough traffic to make them pay; and in the lethal malady which is attacking the commutation business (its hectic wartime revival notwithstanding). From 1932 to 1941, while non-commutation traffic was increasing 111 per cent, commutation traffic declined 18 per cent, and the average rate per passenger-mile (a little over 1 cent) is already so low as to preclude any hope of producing remunerative train-mile earnings by rate reductions.

Train-mile earnings in excess of train-mile costs is the focal point of success with passenger traffic and, since the railroads have embarked upon a program of increasing their train-mile earnings—not by monopolistically high rates, but by attractively low ones—it follows that *all train services which low rates and convenient accommodations cannot fill to a profitable load should be abandoned*. Easier said than done, of course—but who ever heard of a bus line or an air line continuing non-remunerative schedules? The railroads, no longer enjoying (except temporarily while the war lasts) the advantages of a monopoly in the travel market, cannot continue indefinitely assuming the obligations of that status. To serve the public interest and also their own to the maximum, should they not concentrate their efforts and their resources on schedules for which experience shows a growing popular demand?

(See Chart at Top of Following Page)

Efficiency
FOR VICTORY

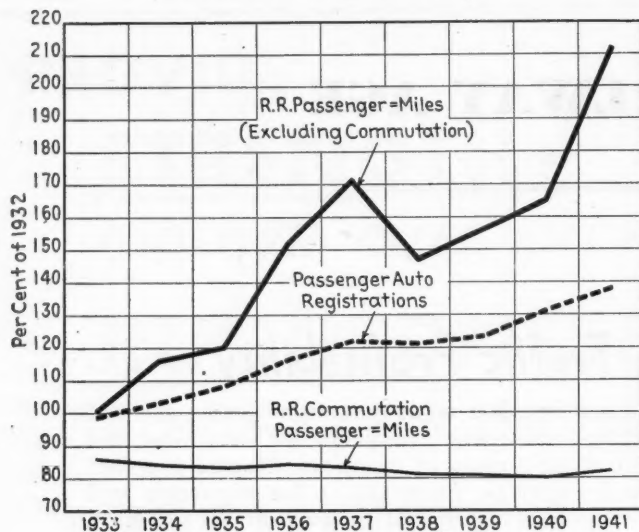
NY

P.A.

Y AGE

Commutation vs. Non-Commutation Travel in Pre-War Years, Compared to Passenger Automobiles

See Editorial on Preceding Page



The Pullman Monopoly Case

Developments in the government's proceeding against Pullman, Inc., for violation of the Sherman Anti-Trust Act raise very serious questions as to who is to furnish sleeping car service in future; and as to whether the efficiency of the service is to be greatly impaired, or its costs and the rates charged for it are to be greatly increased. This paper is as much opposed as anybody to monopoly practices in naturally-competitive industries. But there are businesses which are natural monopolies. For the government to try to substitute their destruction for sane regulation is to disregard plain economic facts and the public interest.

A decree which attorneys for the government proposed recently to the Federal District Court at Philadelphia included a requirement that Pullman, Inc., must dispose of its manufacturing subsidiary and contemplated that it would remain in the sleeping car business. The government's power to dictate the kind of business in which Pullman, Inc., must remain was considered by the District Court and if its decision is upheld by the Supreme Court, Pullman can, if it chooses, remain in the manufacturing business and abandon its sleeping car business. Who, then, would render sleeping car service?

Throughout the proceeding the government has contended that, in order to avoid violation of the Anti-Trust Act, (1) Pullman, Inc., must separate its sleeping car business from the manufacturing activities of its subsidiary, the Pullman-Standard Car Manufacturing Company; (2) the field of sleeping car operation must be opened to the railroads or any other company desiring to engage in competition; and (3) the Pullman company must establish a system of competitive bidding in the purchase of sleeping cars. The decree recently proposed by the government to the court in-

cluded a plan under which more than one company, including railroads, could go into the business of operating sleeping cars, and there would be adopted a standard reasonable and non-discriminatory contract for sleeping car service, regardless of traffic density.

From the standpoint of the public the important question is who shall render sleeping car service. The contention of the government that competition in such service would benefit the railroads and the public is completely refuted by experience and reason. It became a centralized country-wide organization, and for some years has been one, because operation by a monopoly is in the interest of both the railroads and the public.

At present there are about 60 contracts with railroads or groups of railroads for sleeping car service on a basis whereby the railroad participates in revenue per car when it exceeds a fixed amount. On each railroad the revenue from some runs is larger than on other runs, and the revenue from the remunerative runs partially or completely offsets the losses incurred on the unremunerative runs. Railroads render sleeping car service for competitive reasons or to serve public convenience; and of the about 60 contracts in effect, only about 15 support themselves. Because all sleeping cars constitute a pool under a single ownership, each railroad can contract for as many cars as it can regularly use, and can get additional cars when needed.

The government assumes that the present profits from sleeping car operation would be sufficient inducement for the railroads and more than one sleeping car company to engage in sleeping car operation. This assumption is without foundation. The return on Pullman's sleeping car business never exceeded 7½ per cent in the '20s, and was less than one per cent in 1938 to 1942. The Pullman company reported to the Interstate Commerce Commission that in 1942 its net operating income was \$9,150,768, or only 3.29 per cent on a book value of \$278 million. Competitive operation would require a duplication of facilities and service which would increase both investment and total costs of operation, and require an increase in sleeping car rates if service equal to that now rendered were to be maintained.

If the railroads and two or more sleeping car companies operated competitively, the cream of the business would be taken by the railroads and only business on lightly patronized runs would be left for the sleeping car companies. The sleeping car companies would then have to be paid more by the railroads than at present for rendering the service left to them or retire from the business. Theoretically, a pool of cars owned and operated by the railroads might be formed. But if the larger railways participated in such a pool, they would control it and require the railways with light passenger traffic to make good losses incurred on them or be deprived of service.

Operation of all sleeping cars by individual rail-

roads would destroy all the advantages of pooled operation. Individual railroads would have to keep at home to meet competition or emergencies the surplus cars they would have at times. Anyway, the shifting of surplus cars owned by individual railroads from one part of the country to another would be impracticable because of the distances involved. Also, the lending of cars by some railroads to others in the same territory would be impracticable, because all railroads in the same territory have their peaks of traffic at the same time. If individual railroads were to furnish the entire sleeping car service probably 3,000 or 4,000 cars, in addition to the 7,000 cars now used, would be required to render equally adequate service.

Whether the competitive operation of sleeping cars is required by the anti-trust act will finally be decided

by the Supreme Court. That it would not be sound economics or good sense is obvious. Sleeping car operation is and should be treated as a natural monopoly. Sleeping car service never was as good as now, and is still improving. The advantages of the operation of all cars in a single pool was never so conclusively demonstrated as during the present war when only the most efficient operation practicable has made possible the handling of such a huge military and civilian traffic and, specifically, the handling of more than two-thirds of the military passengers in 11 per cent of the capacity of all passenger-carrying cars. The British Chancellor, Lord Eldon, said, "The law is common sense." It is to be hoped that in the Pullman case the Supreme Court will decide, in effect, that the anti-trust law does not violate common sense.

Industry's Isolationists



Roadway Deterioration

The severe restrictions which have been placed on the procurement of materials by the railways, despite the fact that transportation is as essential to the war effort as the activities of the army, the navy and the manufacturer of military supplies, have been prolific of widespread discussion. Attention has been directed from many quarters to the serious need for greater liberality in the allotment of track and structural materials and also of those materials needed for the construction of cars and locomotives. The ill effects of the stringency in materials thus created cannot be overemphasized or repeated too often, for cars, locomotives, tracks, bridges and buildings are being subjected to more intensive use than at any previous time and they are, therefore, wearing out at a faster rate. More materials are now being made available; and there are beginning to be criticisms of railway managements for not making greater efforts to get them.

Quite naturally, the discussions have been directed toward the present needs of the railways, for these needs are both immediate and very great, and the materials that have been allotted so far have not been sufficient to keep abreast of current wear, let alone to catch up on it. In large part also, none of these discussions has recognized that the wear and tear to which railway properties are now being subjected are not confined to certain areas, to certain structures or to certain materials, but are system-wide and all-inclusive.

In other words, the railway plant as a whole is wearing out, not just certain parts of it, such as the rail, the ties, the bridges, the cars, the locomotives or the work equipment.

It should not be overlooked in this connection that a car, a locomotive, a rail crane, a power shovel and other machines will wear out in much the same manner. However, such equipment has the advantage that it can not only be maintained currently with running repairs (the replacement of worn or broken parts) made from time to time as necessary, but at the end of the season for work equipment, after a stated mileage for locomotives and at the ends of stated periods for cars, the unit may be taken out of service, placed in the shop and given a thorough overhauling. At this time it is put in first-class shape for a similar period of service. In contrast, tracks and bridges cannot be released from service even temporarily, but must perform their functions continuously, regardless of their state of repair.

Clean ballast of ample depth is a necessary item in good track; a stable roadbed is equally essential; adequate drainage cannot be dispensed with; and line, surface and gage must be maintained constantly. Essential as all of these items are, they will not prevent the disintegration of the track if the rail, the joints and the fastenings have been allowed to wear out, or the ties have outlived their usefulness. Bridges may

be repaired or strengthened to extend their service life temporarily, but the time soon arrives when they must be replaced; and buildings deteriorate with use and the passage of time, as all man-made structures do. When wear exceeds repair, a day of reckoning is inevitable.

It takes longer to build strength and reserve back into a property than it does to progress to the final stage of deterioration.

Train-Talkie

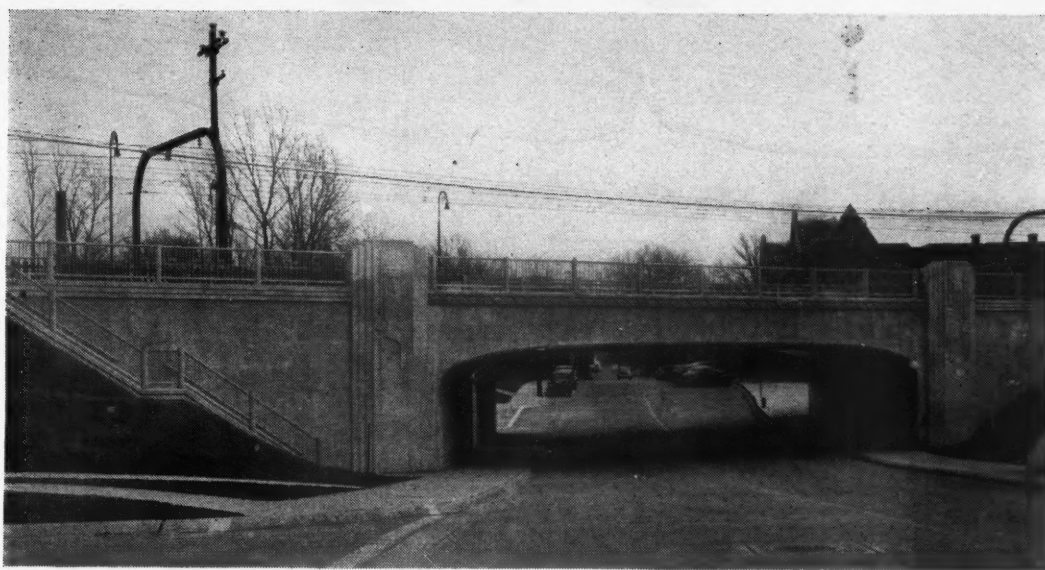
In one of his recent radio broadcasts, Drew Pearson stated that a radio telephone in the cab of the locomotives would have prevented a recent disastrous wreck and asked why they were not in use. This question unjustly implies that the railroads have been remiss in their obligations to the public. It ignores their long and enviable safety record, it suggests that safety practices, operating rules and requirements, etc., are all inadequate, and it also infers that radio telephone would not, like all other devices, be subject to man failure or equipment failure.

Actually, head-to-rear-end and train-to-wayside communication has been experimented with considerably and has been found to be particularly suited to use in yards. Such communication systems do not necessarily involve radio and, in fact, all those now in regular service employ earth currents or wired-wireless systems. The primary difficulty with radio has been that the railroads could not be sure of a wave-band assignment and are not convinced of its necessity or economic advantage.

One difficulty with the use of radio arises from the fact that it may fade out when the train is passing through tunnels, under overpasses and on bridges. This quality plus high noise levels of interference have mitigated against its application.

Trials of train communication systems have, however, proved them to be of such value that further and more intensive studies are now in progress. The potentialities of radio communication have been greatly increased by the development of such devices as the Walkie-talkie operating on frequency modulation. This type of apparatus as now developed almost eliminates fading and noise interference. An outfit of the Walkie-talkie type, but larger and more dependable, can be operated on about five amperes at six volts, requiring in train service no more than an ordinary automobile battery.

At the present time, of course, the first call on all such equipment is given to the armed services, but in the post-war period and perhaps sooner, it will become available to railroads. If in the meantime the railroads could develop specifications covering the characteristics required of such equipment, it would considerably simplify the problem of adapting the military designs to railroad use.



Completed Winnetka Avenue Subway, Looking East

Overcome Many Complications in Long Grade-Separation Project

A CONTINUOUS railway-highway grade separation project 3.51 miles in length has been completed at Winnetka, Ill., which involves two adjoining double-track railroads and cost \$4,280,000. Winnetka is a residential suburban community of 13,000 population, 19 miles north of Chicago on the shore of Lake Michigan. This village is populated largely by Chicago business and professional people who commute daily on the Chicago & North Western or the Chicago, North Shore & Milwaukee (electric). Each of these roads has a double-track line, extending through the center of the village.

The North Western line was constructed in 1855 and carries about 94 trains daily, including one freight and a number of fast through trains. The North Shore was constructed in 1898, paralleling the steam line, and immediately adjoining it through most of the North Shore suburbs. This line regularly operates 122 passenger trains daily. By 1905, the North Western had completed its track elevation north through Evanston, several miles south of Winnetka, and the village engineer of Winnetka became interested in its extension. Plans and recommendations were prepared, which were revived at various times between 1905 and 1937.

Depression vs. Elevation

The question arises as to why track elevation was not adopted, being appreciably less expensive. Traffic safety was involved, but in the final analysis it was largely a question of aesthetics. Property values are conserved and promoted by the preservation and enhancement of residential desirability. Consequently, it was early decided and consistently maintained that a fundamental consideration should be improvement in

Two roads depress and raise tracks through Winnetka, Ill., over a distance of 3.51 miles, at a cost of \$4,280,000*

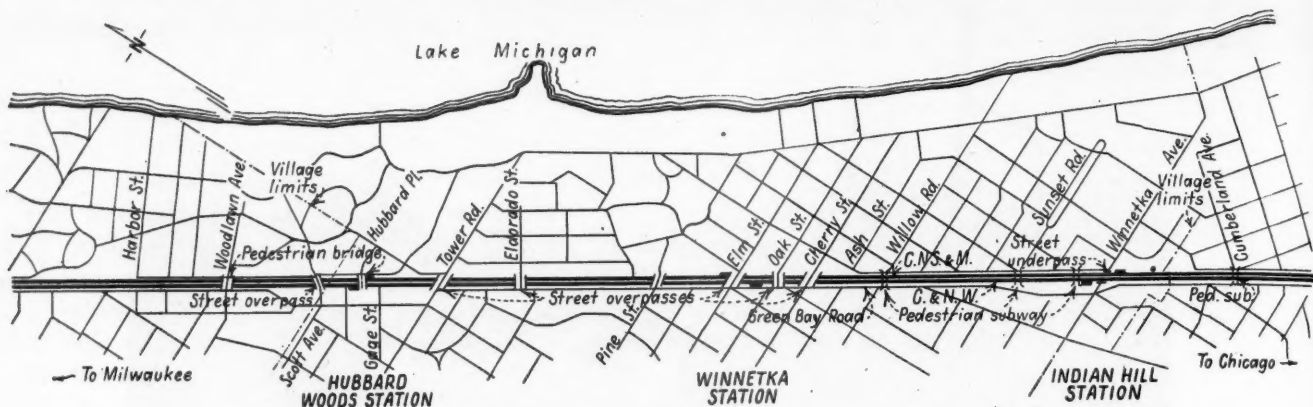
By Robert L. Anderson

Superintendent of Public Works, Winnetka, Ill.

conditions as regards dirt, noise and appearance, as well as in safety. In addition, elevation would create several hazardous locations where cross streets would emerge from subways onto a through highway immediately paralleling the railroads. Elimination of one set of dangerous conditions only to create another of a different kind was thought a poor procedure.

As a matter of fact, the project does include elevation of the southerly end, dictated by the terrain. The line of the railroads is intersected in the southerly part of the village by a shore of one of the prehistoric stages of Lake Michigan, which now forms a rise of some twenty feet in the otherwise flat country. The ground line north of this point is, therefore, 70 to 80 ft. above present lake level, compared with about 45 ft. to the south. Obviously, by continuing on a level gradient from Winnetka avenue northward, the track would be about twenty feet below ground level a few thousand feet north. In approving the project the railroads kept in mind its relation to their future layouts, which will probably include a northward extension of the existing

* Abstract of an address presented before a recent meeting of the Western Society of Engineers at Chicago.



Plan of Easterly Portion of Winnetka, Showing Location of Crossings

elevation in Evanston. The situation described above constitutes a logical location for a transition from elevation to depression.

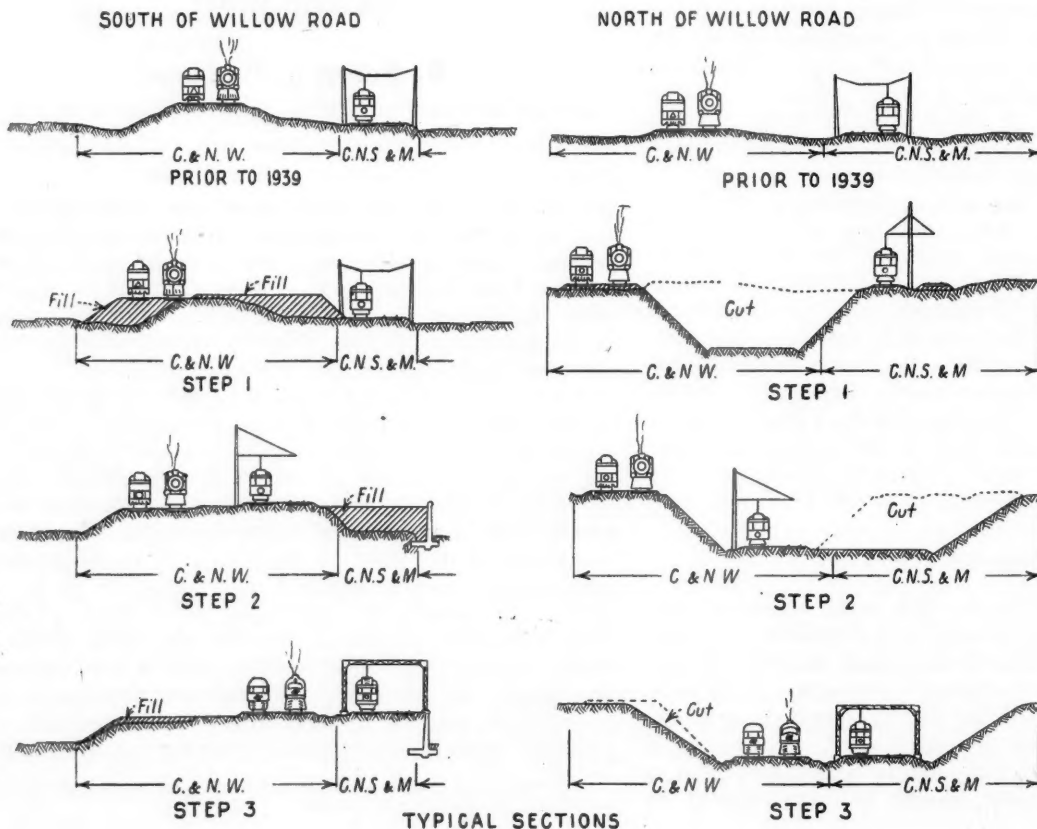
The use of standard vertical clearances at bridges was felt to be unnecessary where so little freight traffic is handled. The Illinois Commerce Commission accordingly authorized 18-ft. 6-in. clearances, with the requirement that all bridge girders over the North Western be illuminated. Thus, the project was relieved of the heavy expense of a 3½-ft. deeper cut.

Once in the ground, grades are maintained to adjust the cut to surface contour, resulting in no grade heavier than 0.2 per cent until the run-out section at the north end is reached. This latter section is approximately 3,900 ft. long, mostly in the village of Glencoe, and has a grade of 0.7 per cent, which is the maximum on the job. This grade line thus fixed the major features of the project, with a cut from Willow Road north and a fill from that point south, quantities being roughly 950,000 cu. yd. of excavation and 109,000 cu. yd. of fill for the elevated section.

Limited right-of-way along the easterly or North Shore side made necessary some retaining walls and the use of slopes of 1½ to 1. Considerable trouble has been experienced in stabilizing these slopes at points where subsurface water was encountered. All slopes were sodded, and all troublesome points have been drained and planted with black locust trees, the extensive root systems of which are expected to prevent future trouble.

The project provides straight track alignment for both roads throughout, with the inside track for the North Shore 11 ft. 6 in. from the joint right-of-way line, and 13 ft. 6 in. between track centers. Because the North Western line also handles some freight traffic, the inside track is placed 15 ft. 6 in. from the joint right-of-way line, with 14 ft. between tracks. Former curves in the North Shore tracks around the North Western's widened right-of-way at stations were eliminated in the plan for pooling rights-of-way, under which the North Shore pays rental for the North Western property occupied at these locations.

In addition to their present double-track main lines,



Typical Cross Sections Showing Sequence of Construction Operations South and North of Willow Road

Completed Cut Section at El Dorado Street Bridge



each railroad has long-range plans for additional tracks. Accordingly, all permanent structures were required to provide side clearances sufficient to care for such tracks, or at least had to be planned, as in the case of bridges, so they could be extended easily. This requirement added somewhat to the length and cost of the bridges.

One North Shore and two North Western sidings were required to be kept in operation throughout the job, somewhat complicating the procedure. An additional North Shore passing track 1800-ft. long was also built.

Public Facilities a Problem

Incidental railroad facilities to be cared for included both roads' signal systems, an extensive Western Union leased wire system, the North Shore's electrification and, of course, station facilities. The stations presented some of the most difficult and expensive problems encountered, since they had to be kept in operation throughout the job, with platforms following the shifting of tracks, and finally had to be replaced with permanent facilities. The North Western had three stations, while the North Shore had two main stations and four secondary stops, of which one was expanded to a full-size station. All North Shore stops within the cut section were provided with raised platforms and gauntlet tracks for the passage of wide equipment.

Public facilities to be considered included the village street system and public utilities. The railroads were crossed by ten streets at grade in Winnetka and two in the Glencoe run-out section, in addition to one pedestrian underpass. The one crossing in Kenilworth, also a pedestrian underpass, was unaffected. Of all these, the only crossing closed was at Ash street, where grades became impossible. One in Glencoe and one in Winnetka were replaced by pedestrian bridges, one more in Glencoe remained a grade crossing, Winnetka avenue was replaced by a railway bridge and subway and the other seven were replaced by highway bridges. In addition, two other pedestrian subways were included. There are thus fourteen crossings with grades separated and one grade crossing unchanged, as against fourteen crossings before, of which only two for pedestrians had separated grades. The maximum distance between pedestrian crossings is 2,000 ft., while that between vehicular crossings is 4,200 ft., falling at the transition between elevation and depression.

Aside from streets crossing the project, there were some problems in connection with those paralleling the railroads. The most important was that of Wilson street, adjacent to the elevated section, where part of the dedicated width is occupied by the North Shore.

Construction here of some 2,300 ft. of retaining wall 11 to 14 ft. in height, with footings extending well out into the old pavement, required complete repaving of this street.

Utilities involved included sewers, water mains, electric service, telephone and gas lines, of which all but the last two are village-owned. Sewers in Winnetka are of the separated type, with independent systems for sanitary sewage and for storm water. Fortunately, the natural watershed divides roughly along the railroad line, so there were relatively few crossings. Of the four sanitary lines encountered, two were not disturbed because of grade differences. One more was eliminated by cutting it into a deep interceptor, and an inverted syphon was required to care for the remaining one.

Storm sewer crossings existed at five points, two of which again did not conflict. One was solved by lowering and flattening the grade and another was handled by taking it into the cut drainage. Only at Woodlawn avenue, Glencoe, was trouble encountered when the village refused to accept an inverted syphon and required reconstruction of a 36-in. sewer for some 2,100 ft. to its outlet. This unanticipated additional cost was avoided by handling this work as a W. P. A. job, independently of the main project.

Six water main crossings required four inverted syphons, the other two not being in conflict for grade. However, one of these had to be shifted laterally to make room for a pedestrian subway.

During construction several conduit crossings of the electric distribution system were carried on temporary bridges and were later imbedded in the permanent bridges, except where they could be included in tunnels driven for sewer or water crossings. Telephone and gas crossings were also included in one of these utilities tunnels, and were lowered when encountered elsewhere.

Construction Plan and Progress

Drainage of the cut section was provided by the construction of a sewer system along the joint right-of-way line, the water being picked up from inlets draining the subgrade. These sewers are of concrete pipe 12 in. to 36 in. in diameter, and discharge into two out-fall storm sewers leading to Lake Michigan.

In the construction work, the large volume of railroad traffic was a major factor, and maintenance of the train schedules of these roads was a fundamental requirement. As many of the street crossings as possible were closed during the construction, but public convenience and adequate fire protection requirements made it impossible to do away with four of them. These were provided with temporary bridges which had to be

located so as not to interfere with the construction of the permanent structures. Two temporary pedestrian bridges were also maintained.

These conditions, coupled with limited widths of rights-of-way and the need for a rush schedule to satisfy P. W. A. requirements, created a construction problem of no little complexity. The general plan of construction was substantially the same in both the cut and fill sections, with many local variations. It is illustrated in the accompanying diagram and consisted essentially of the following steps:

- (a) Construction of temporary station facilities for the North Western.
- (b) Construction of temporary tracks for the North Western along the west edge of their right-of-way, and transfer of train operation to them.
- (c) Removal of old tracks, and cut and fill number one.
- (d) Construction of permanent North Western tracks, their temporary electrification and temporary North Shore station facilities, and transfer of North Shore operations to these tracks.
- (e) Removal of old North Shore tracks, construction of Wilson Street retaining wall, permanent Winnetka Avenue North Shore bridge, and cut and fill number two, finishing the east side of the section.
- (f) Construction of permanent North Shore tracks, electrification and station platforms, and transfer of operations to these tracks.
- (g) Removal of temporary electrification and North Shore platforms, construction of permanent North Western platforms and transfer of North Western operations to their own permanent tracks.
- (h) Removal of temporary North Western tracks and platforms, then cut and fill number three, completing the west side of the section.
- (i) Construction of permanent North Western station facilities and removal of temporary facilities.

As each additional cut was made, temporary bridges had to be extended across the new excavation and often

adjusted for grade, necessitating the closing of each street for a few days. Otherwise, bridged crossings were kept open the full time. In order that they should not interfere with the construction of permanent bridges, two of the temporary structures, where property lines permitted, were located at one side. This was not possible at the main crossing at Elm street, but the greater width of this bridge permitted its construction in halves, so the temporary span was located in the south half of the permanent structure, and removed as soon as the north half was usable. Add to this the complication that the west half of all bridges could not be built until the temporary North Western tracks were removed and then had to be built over operated tracks, and it becomes apparent that the bridge construction was an involved procedure.

At Winnetka avenue, grade differences between temporary and permanent tracks used simultaneously at various stages of the Work made it impossible to keep the crossing open all the time. Because of the street's importance, a temporary underpass was built a block north.

The grading contractor elected to transport excavated material by truck, disposing of waste by filling low-lying areas in the Skokie valley, a little over a mile to the west. While this provided the necessary flexibility, it threw heavy volumes of trucking onto narrow village streets, with loads far beyond what they were intended to carry. This traffic movement was controlled by careful routing and signaling, to distribute and protect the traffic, to prevent pavement damage and to relieve the residential occupants by shifting routes from time to time. The dust nuisance was alleviated to some extent by frequent sprinkling and sweeping by the village.

The administrative work for the village in connection with this project was handled by H. L. Woolhiser, village manager, and construction, design and management were under the direction of P. E. Conner, project engineer of Charles DeLeuw & Co. G. A. Saint, grade separation engineer, represented the Chicago & North Western, while J. S. Hyatt, chief engineer and H. G. Mason, assistant engineer, acted for the North Shore.

Majority Rule or Majority Tyranny?

The present writer [has] referred to the menace of totalitarianism in democratic form, that is, of the principle of "absolute majority rule." One of his readers has reproved him for questioning "majority rule" and charged him roundly with a desire to get rid of democracy and replace it by "fascism." Now this is an example of what may be called the "straw man technique" of argumentation. You object to "absolute majority" democracy; therefore, you object to democracy, and consequently are a "fascist." As a matter of fact this technique is almost the characteristic feature of present-day dialectics. The air is full of fragments of "straw men" all the time. It is rare to come across a piece of dialectics into which the straw man has not entered. It is the easiest and quickest method of darkening counsel, and that is bad business. But we all, occasionally at least, resort to it. . . .

Democracy must work on the principle of decisions by majority opinion; there is no other possible method. The essence of civil liberty is limitation upon the authority of the government over the citizen. Absolute majority rule connotes absence of limitation upon the *authority* of the majority, and therefore destruction of the citizen's liberty. There is no way of *physically* limiting the *power* of the majority. Consequently it is restriction of its *authority* that is the prophylactic of civil liberty. Restriction of majority authority can be achieved only by acceptance on the part of the majority of a *principle* which sets limits to that authority. That principle must be in the order of

morals—the order of "right" and "wrong" as distinguished from the order of "wise" and foolish, which is the order of "expediency."

Our own civil order is founded upon a *moral* principle definitely stated in the preamble of the Declaration of Independence, and *absolutely* excludes the notion of "absolute majority rule." On that rest all our civil liberties.

Now the clear fact is that a considerable section of what we call "liberal" opinion openly reject that principle. "Fortune's" supplement on "Our Form of Government," recently published, says: "There is today a great new burst of political philosophizing, greater than at any time since the eighteenth century. The eighteenth century's conclusions about government are no longer taken for granted; the 'acids of modernity' have eaten them away. Modern man no longer accepts the absolute of 'natural rights'; his philosophizing persuades him that he conferred these rights on himself and can, therefore, take them back."

It could not be better stated. And in these facts lies a menace to human liberty greater than that in all the Axis military forces were they twice as great, and many among us do not yet even suspect it. Therein lies the difference between the true and the false liberal. Anyone can determine the truth or the falsity of his liberalism by asking himself whether or not he believes in a moral law which restricts the *authority* of the majority over him.

—Thomas F. Woodlock in the Wall Street Journal



(Left)—Moving the main underframe into place is the first step in assemblage. (Below)—Sgt. Thomas R. Rials (East St. Louis, Mo.) guiding the underframe into position as it is being lowered onto the axles by a crane. (Center)—Superstructure and roof are applied at the fifth station in the line. The panels, which are here being directed into place, are of plywood with steel frames. (Bottom)—As the car nears the end of the assembly line, rivets are put into place. Pvt. James H. Stoeppelman (Canton, Ohio) is here enlarging some of the rivet holes beneath the door opening

U. S. Signal Corps Photos

M.R.S. Unit Assembles 30 Cars Per Day

AT AN Army assembly plant in Great Britain, box cars, flat cars, cabooses and refrigerator cars, are being turned out at the rate of 30 each day. Commandant in charge of the Military Railway Service battalion is Lt. Col. Howard U. Bates (former general foreman of the shops and engine house of the Pennsylvania at Canton, Ohio). His key workers are men with previous railroad experience, but the majority of soldiers engaged in this work had no previous railroad experience prior to entering the Army.

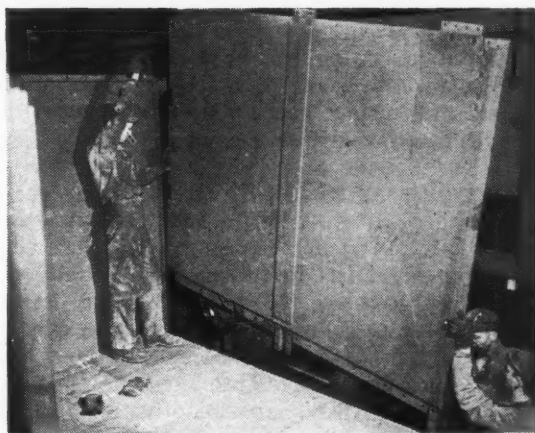
As parts are received from the United States, wheels, trucks, frames and panels are stacked in orderly piles, first in the yard and thence moved to the shed which comprises the erecting shop. Six tracks run through the shed, each acting as a production line, with 155 men and an officer assigned to each track. Sub-assembly sections are directed by non-commissioned officers. When peak production is finally reached, it is estimated each line will be able to turn out a complete car every hour.

Trucks, side panels and roof are added to the main frame as it is moved along the line. The car is ready to emerge from the end of the shed when it has received the regulation coat of olive drab paint.

Often Hard Put for Storage Space

This plant also assembles tank cars in large numbers. Since the parts arrive more nearly assembled, the work consists merely in placing the tank on the trucks and welding the unit together. Parts for other types of cars are assembled so rapidly by the shop company that the battalion is "hard put" to find storage space. Locomotives are built in the States and shipped complete, but occasionally this battalion is called upon to modify them to fit certain operating needs in Britain or anticipated conditions on the continent.

The unit was trained for its present assignment at the military railway center in New Orleans and at the Pennsylvania's Bucyrus, Ohio, shops. In addition to its assembly plant, the battalion operates a depot where cars are stored preparatory to eventual shipment behind the invasion army.



Research on the Missouri Pacific

Inquiry is systematized by a plan designed to secure the advantages, and forestall disadvantages, of both the centralized and the officer-committee methods

By W. H. Hobbs

Director of Research, Missouri Pacific

THE Missouri Pacific Lines have in recent months developed a form of centralized research which is designed to combine the advantages to be found in the use of an independent research staff and in the performance of such functions by committees of company officers. It was thought that the knowledge and experience of various officers of the several departments constituted an invaluable asset which should be utilized in any research organization. At the same time, it was believed that an independent department devoted exclusively to research work possessed certain advantages, since it would provide assurance that the research program would not be subordinated to the pressure of the day-to-day work of the departments; the research personnel would be allowed time and opportunity to develop broad inter-departmental interests, fresh points of view, and more critical attitudes toward specific problems and toward the breadth of research to be undertaken. As a result of these considerations, officer committee research and centralized research have been fitted together to make up a comprehensive and unified organization.

Directed by Committee of Department Heads

At the top of this organization is a newly-formed Research Council reporting directly to the president. Acting as chairman of this council is W. H. Hobbs, director of research and formerly engineering assistant to the president. The other council members are: W. G. Vollmer, senior vice-president; P. J. Neff, executive vice-president—Texas Lines; R. C. White, vice-president and general manager; J. A. Brown, vice-president—traffic; M. Eckert, vice-president—accounting and finance; H. M. Johnson, general freight traffic manager; and H. L. Schaeffer, general passenger traffic manager.

Reporting to this council and to the president, and organized as part of the executive department, is the Research Department. In addition to the director its members are H. L. Purdy, assistant director; C. L. Butler, traffic assistant; H. D. Knecht, transportation engineer; L. A. Bruns, supervisor of statistics; and a staff of clerical and stenographic assistants.

The final unit in the structure is made up of a number of officer committees. These committees have an average of five members and the director of research as a member *ex officio*. Subjects for study are carefully defined by the Research Department and proposed to the Research Council. After approving a subject, the research council appoints a committee of appropriate officers. On a number of these committees a member of the Research Department has been included. Each such committee is specifically organized to study an assigned subject. In this fashion it is possible to spread the research work over a wide personnel, thereby developing a broad interest in the research program, while lessening the burden

falling on individuals and increasing the range of experience and abilities that may be utilized in the program. The studies prepared by these committees will be considered by the Research Department and presented to the Research Council who, after review, will report them with recommendations to the president.

The officers and employees of the Missouri Pacific Lines were solicited for suggestions concerning topics



W. H. Hobbs

that should be made the subject of research and their responses have shown a wide interest in and knowledge of the problems of the railroad. The suggestions have ranged from fundamental matters of organization to very specific topics concerning mechanical, traffic, operating, accounting, personnel, communication and many other features.

Car Repair Costs, Commodity Traffic Trends

The Research Department has completed a study of freight train car repair costs and policies and is now engaged in two other studies. The first concerns commodity traffic trends on the Missouri Pacific Lines and will consist of a number of separate commodity studies. In general, the commodities will be chosen for their revenue importance, but, in certain cases, a selection may be made because of special developments that have occurred in recent years. Each of these studies will cover the period from 1928 to date and will compare the traffic of the Missouri Pacific Lines with production, consumption

Organization—Key Question in Research

Once the management of a railroad has determined upon a policy of systematic and critical inquiry into observable external and internal factors which may have a bearing on the company's continued well-being, the vital problem still remains of fitting the research activity into the organization so that it may function effectively without friction. The Missouri Pacific's ingenious solution to this key problem of any railroad research program is set forth in Mr. Hobb's article herewith.

and importation or exportation in the areas served. If traffic trends have not closely followed the production or consumption trends, the study should develop reasons for the departures and endeavor to suggest methods of correction. If any important change has occurred in production or consumption the cause and probable permanency of the change will be determined.

In a second and closely related study the Research Department is working with the Industrial Department on an analysis of the reconversion prospects of the war-developed industry of the area. It is hoped that the study will forecast the postwar changes in both the volume and character of traffic that may occur in the industries particularly affected by the war.

Further Studies in Prospect

The scope and variety of research being undertaken are suggested by the following topics which are included in the list for which officer committees have been organized: (1) passenger and shipper opinions and suggestions; (2) heavier loading of carload and l. c. l. freight in the post-war period; (3) the increased use of modern lightweight passenger train equipment; (4) more extensive use of roller bearing equipment; (5) consolidation of train wheel and auditor's passing reports; (6) the use of radio in train communication; and personnel problems.

The last-named study may be used to illustrate the manner in which the Research Council can bring together in the selected committee a number of members who will represent different approaches to and interests in the subject under consideration. Their inclusion in one committee should assure a broadly conceived and thorough analysis of personnel matters. The study will cover the whole range of personnel problems, including not only the technical personnel matters connected with the selection, training, promotion and supervision of employees, but also the broader problems associated with the development of proper employer-employee relations. The committee consists of the following members:

- H. M. Johnson (chairman), general freight traffic manager.
- E. Sullivan (vice-chairman), general superintendent of Transportation
- H. E. Roll, chief personnel officer
- J. F. Rector, director publicity-advertising
- C. S. Kirkpatrick, chief engineer (Texas Lines)
- C. D. Peet, assistant chief accounting and financial officer
- L. H. Kueck, chief mechanical engineer
- A. A. Taylor, assistant general purchasing agent

The varied technical aspects of the personnel problem in different departments are well represented in the committee and this should permit a broad and practical approach to the problem.

This committee and others similarly organized to study other assigned topics will, wherever possible, make use

of the research which has been done or is being carried on by the Association of American Railroads and by other organizations. In any case where this research has been particularly exhaustive the task of each committee will largely consist of determining the extent to which the general conclusions arrived at may be applicable to the specific situations faced by the Missouri Pacific Lines.

R.R. Jobs Have Edge On Those in Industry

THERE are advantages to railroad employment which to a large extent equalize—or even more than offset—the superficial superiority of some wage rates in some other industries. This fact, as an incentive to attracting needed new employees to the railroads, ought to receive greater emphasis than it has been given—such, in substance, is the opinion of Otto S. Beyer, director of the Division of Transport Personnel, O. D. T., made known in an address to New York Central veterans in New York on January 27.

"I would like to appeal to you," said Mr. Beyer, "to wipe the slate clean of any animosities that may have been engendered during the process of settling a very long-drawn-out and difficult wage case. There are probably many men right now in war industries who are looking with envy at regular, permanent jobs. No industry which can provide as substantial annual earnings as the railroad industry is now able to do, need suffer comparison with other industries.

"There are a good many other advantages to being a railroad man. There is the advantage of working in an industry completely vital to the success of our war effort. Seniority provisions written into labor contracts protect the railroad man in the right to hold a job. He can also point with satisfaction to a system of old age retirement and unemployment insurance, which in many respects is more favorable than exists in any other industry in any part of the world. Railroaders worked long for that system and have a right to be proud of it. They should not be slow in pointing out its advantages, not only to young and inexperienced workers in the railroad industry, but also to new applicants for railroad jobs.

"Railroad men have the advantage of a federally-controlled system of labor relations which, in spite of the difficulties which have recently attended its operation, has demonstrated its value both to employees and to railroad management. The railroader can point out to new employees and to applicants for railroad jobs that the whole body of labor rules which have been agreed to by the railway labor organizations and by management constitute one of the most important advantages of working in the railroad industry. Finally, the railroad employees have the advantage of organization in strong labor unions."

Stating that the comparative merits of railroad employment which he cited do not "by any means exhaust the catalog," Mr. Beyer urged that these be explained to prospective railroad employees as inducements to them to seek railroad jobs.

Complimenting railroad employees for their hard work and long hours in moving war traffic, Mr. Beyer went on to ask them to use their influence to reduce the turn-over among railroad employees, and also that each employee make himself a "one-man recruiting agency" for the railroad industry—among his relatives, friends, and acquaintances.

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Finding Out Whether the Engine Will Do a Particular Job

Suitability of Diesel-electric switchers for specific applications may be determined quickly by means of nomographic charts

By A. P. Millan and T. F. Perkinson

Transportation Division, General Electric Company

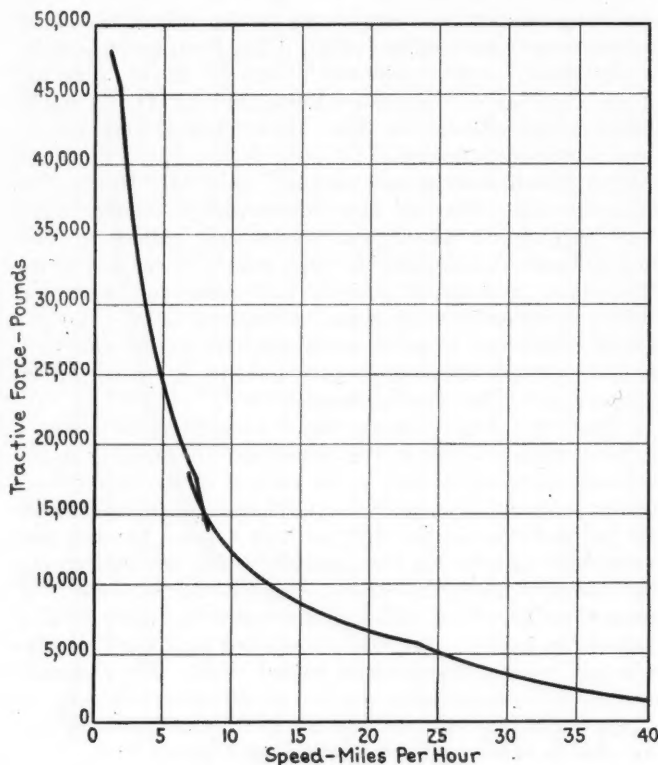


Fig. 1—Speed-Tractive Force Characteristic for 80-Ton, 500-Hp. Diesel-Electric Switching Locomotive

IN the process of determining applicability of Diesel-electric locomotives to railroad and industrial switching services, it is often necessary to determine whether or not the haulage of a given train up a grade of known length and severity is possible without exceeding the locomotive equipment heating limitations. The performance of such a haul is limited by wheel-to-rail adhesion or by heating of the electrical (traction motors and generators) or the engine equipment, or by both of these limitations.

Since switching service, be it industrial or railroad, generally comprises relatively short movements at full load rating of the locomotive engine equipment, coupled with idle periods, the engine equipment is in general applied on an intermittent rating basis. Thus, a nominal 500-hp. unit is suitable for sustained operation of

This article is an abstract of a paper presented at the annual meeting of the American Institute of Electrical Engineers, New York, N. Y., January 25.

the engine equipment at 500-hp. output for but a limited period of time. This may be a period such as one-half hour, or one hour, after which the load must be reduced to a fraction of the rating for a definite period of time before the nominal rating load can be carried again. Likewise the traction motors and generators are limited to definite period loading depending upon the heating characteristics of the machines under various conditions of loading.

The conventional speed-tractive force characteristic of the Diesel-electric switching locomotive by itself gives no information as to the service that can be performed with the locomotive without exceeding its equipment limitations, particularly in the high tractive force, low-speed portions of the characteristic where electrical equipment heating is limiting.

The speed-tractive force characteristic can be combined with the time limitation characteristics of both the engine and electrical equipment on a nomographic chart which can be used to determine graphically and quickly whether or not a particular locomotive can handle safely a given train under known conditions of grade and length of grade.

The trailing tonnage that can be handled by a locomotive at a definite speed on a given grade is determined by solution of the equation (1).

$$W_t = \frac{T - W_L (R_L + 20 G)}{(R_t + 20 G)} \tag{1}$$

in which

- T = tractive force, in lb. of the locomotive at the given speed
- R_L = resistance of the locomotive, in lb. per ton of locomotive weight, at the given speed.
- R_t = train resistance, in pounds per ton of train weight, at the given speed.
- W_t = weight of trailing train, in tons.
- W_L = weight of locomotive, in tons.
- G = grade, in per cent.

The train resistance varies with the individual weights of cars in the train but since unjustifiable complications

Table I—Trailing Tonnages					
Per Cent Grade (Compensated)					
Speed m.p.h.	Level	0.5 Per cent	1.0 Per cent	1.5 Per cent	2.0 Per cent
3.3	3,737	1,674	1,057	762	588
5.0	2,767	1,227	768	547	418
7.5	1,923	840	516	361	270
10.0	1,420	609	367	251	182
15.0	974	404	234	152	104
20.0	731	292	161	98	61
25.0	540	204	104	56	28
30.0	340	113	45	12	..
35.0	193	45	..	..	..
40.0	100	..	..	..	..

Resistance based on 8.5 lb. per ton, motors blown.
Tonnages do not include weight of locomotive.

in the calculations would be involved were this variation considered, a fixed value of train resistance based on experience is assumed in the following—this is taken at 8.5 lb. per ton. The value of R_L , resistance of the locomotive, is, however, easily determined for different speeds by equation (2).

$$*R_L = 1.3 + \frac{29}{W} + 0.03V + \frac{0.0024AV^2}{WN} \quad (2)$$

in which

- R_L = resistance of locomotive in lb. per ton.
- W = weight per locomotive axle, in tons.
- N = Number of locomotive axles.
- V = speed in miles per hour.
- A = cross-section of locomotive in sq. ft.
- = 105 for 50-ton locomotives.
- = 110 for 70-ton locomotives.
- = 120 for 100-ton locomotives.

By means of the two equations given in the foregoing, and the speed-tractive force characteristic curve applying to the particular locomotive (Fig. 1 shows such a characteristic for a 500-hp., 80-ton locomotive) a tabulation showing speed, grade and trailing tons can be arranged as shown in Table I. This tabulation can be plotted in the form of a three-element nomogram with speed, grade and trailing tons as the three elements. While the nomogram may be worked out analytically the authors suggest that the graphical method of constructing the

* Tractive Resistance of Electric Locomotives and Cars by W. J. Davis, Jr., General Electric Review, October, 1926.

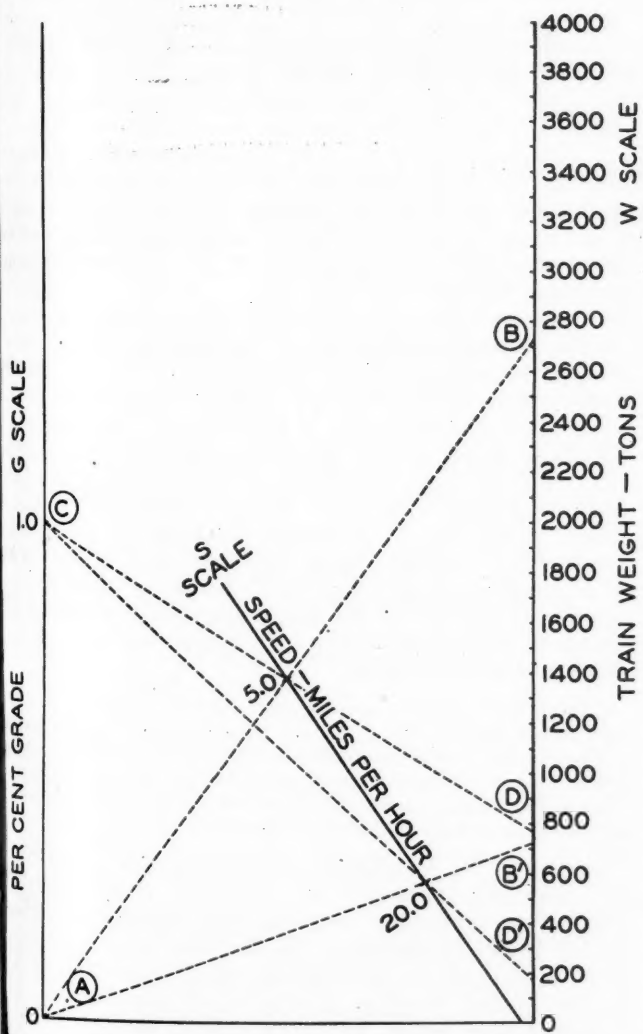


Fig. 2—Construction of Speed-Grade-Train Weight Nomogram

nomogram, as described in the following, is simpler and less tedious for other than those skilled in setting up nomograms in general.

On any convenient size of paper the G -scale is drawn, as shown in Fig. 2, at the left-hand side of the paper perpendicular to the base ordinate, while the W -scale is erected perpendicular to the base line near the right-hand side of the paper. The authors suggest a minimum distance of 10 in. between the G - and W -scales, and a length of 20 in. for the G - and W -scales for charts for locomotives up to 1,000-hp. rating.

The W -scale is marked off in a rectilinear scale so that the maximum tonnage shown in Table I falls near the top of the sheet, with the value of zero tons at the base line. On the G -scale the value of 1.0 per cent grade is arbitrarily located one-half of the length of the G -scale line above the base line. The value of zero per cent grade is taken at the base-line.

The S -scale is located as follows: From the table select a value of tonnage that can be handled at a low speed—5.0 m. p. h.—on level grade, and draw the construction line AB , (Fig. 2). From the table select a value of tonnage, corresponding to the same speed previously used—5.0 m. p. h. in the present case—that can be hauled on a 1.0 per cent grade. Draw the construction line, CD . The intersection of AB and CD determines one point on the S -scale. A second point corresponding to a higher speed can be determined in a similar manner by selecting two combinations of speed, tonnage and grade from Table I. The S -scale is then drawn in as shown as a straight line.

The G -scale may be calibrated up to the maximum value of grade desired by calculating the value of W for assumed values of G at 5.0 m. p. h. by equation (1), and locating the values of G on the scale by means of a straight-edge from the value of W on the W -scale through the 5.0 m. p. h. point on the S -scale.

Similarly the S -scale may be calibrated by laying a straight edge between the values of tonnage and grade given in Table I. The upper end of the S -scale may be taken at a speed point corresponding to 25 per cent adhesion tractive force on the speed-tractive force characteristic. In the example selected, 25 per cent of the locomotive weight is 40,000 lb., and the speed corresponding to this tractive force from Fig. 1, is 2.2 m. p. h.

The elements of the chart which are required to indicate engine and electrical equipment heating limitations are added as described in the following procedure.

At the point on the S -scale corresponding to 25 per cent adhesion speed a perpendicular AB in the Fig. 3 is erected. Another line, CD , Fig. 3, is erected perpendicular to the S -scale at the locomotive speed corresponding to the short-time limitation on the electrical equipment which corresponds to the short-time limitation on the engine equipment. In the example selected the engine equipment is limited to operation at 500 hp. for 30 min., and the speed of 3.5 m. p. h. corresponds to a 30-min. rating on the electrical equipment for an initial winding temperature of 100 deg. C. and final (at the end of 30 min.) of 160 deg. C.

The point, D , is projected over the line AB , parallel to the S -scale to the point, E . The line AE is then laid off on a logarithmic scale in minutes with the value of 1 at A and 30 at E . The points, F , G , H , are laid in on the 10-, 15-, and 20-min. lines at the speeds corresponding to the tractive forces to which these short-time ratings conform. The line $FGHD$ indicates the limitations imposed by safe heating of the electrical equipment.

The line JK is now drawn in as shown, perpendicular to the S -scale at J , and calibrated in a log scale in speed

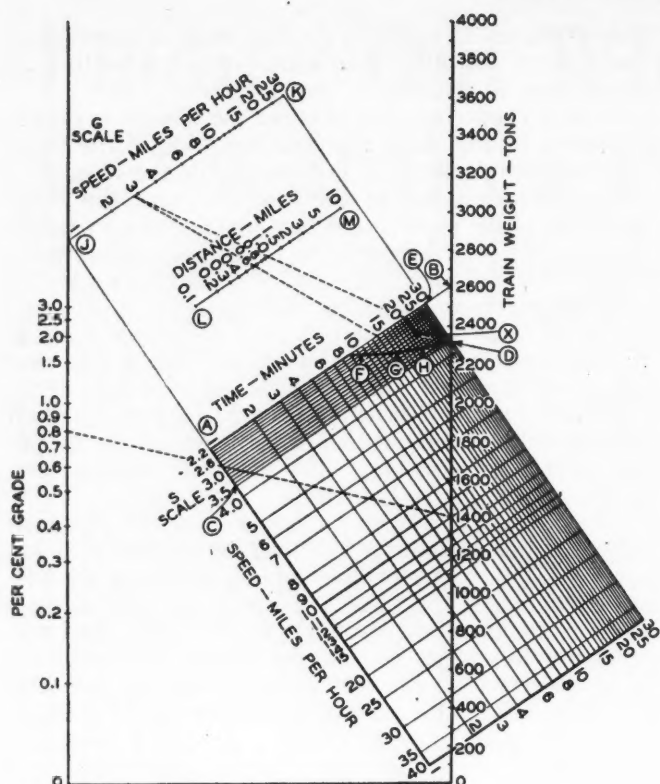


Fig. 3—Speed-Grade-Train Weight Nomogram Combined with Speed-Time-Distance Nomogram to Form Complete Working Chart

in m. p. h. with the value of 1 at J and the value of 30 directly opposite the 30-min. mark on AB. The line LM is erected midway between JK and AB, and calibrated in a log scale in miles, fixing the 0.1-mile and 10-mile points with a straight edge laid between JK and AB at the points 3 m. p. h. and 2 min. (for 0.1 mile) and 30 m. p. h. and 20 min. (for 10 miles).

The elements AE, LM and JK are a nomographic plot of equation (3).

$$M = 0.01667 \times S \times T \quad (3)$$

in which

M = distance, in miles.
S = speed, in m. p. h.
T = time, in min.

The chart is now ready for use.

As an example of its use: It is desired to determine whether the haulage of a 1,400-ton train up a 0.8 per cent grade one mile long will cause overheating of the engine or electrical equipment on the 80-ton, 500-hp. locomotive for which the chart has been drawn.

A straight edge laid between 0.8 on the G-scale and 1,400 on the W-scale crosses the S-scale at 2.8 m. p. h.

A straight edge laid across the points 2.8 on line JK and 1.0 on line LM intersects the time scale at 21.5 min. A line drawn from 2.8 on and perpendicular to the S-scale intersects the 21.5-min. line at X, and since this point lies above the electrical equipment heating line FGHD, the indication is that the electrical equipment will be overheated in performing the given service. It will be noted that the line from 2.8 m. p. h. on the S-scale to X intersects the line FGH at 14 min. A straight edge laid between the 14-min. point on line AB and the 2.8 point on JK intersects the M scale at 0.66 miles, indicating that haulage of the 1,400-ton train on a 0.8 per cent grade should be limited to a distance of 0.66 miles, if the electrical equipment is not to be overheated.

By obvious "cut-and-try" methods it can be determined

that a train of 1,285 tons trailing is the maximum that can be handled on the 0.8 grade one mile in length without exceeding the permissible temperature rise in the electrical equipment. If the intersection of the speed line from the S-scale with the time line falls below the electrical equipment heating limitation line but to the right of the 30-min. line, overheating of the engine equipment is indicated. If the straight edge between the G-scale and W-scale falls across the S-scale at a point above and to the left of the point A, a high value of adhesion (greater than 25 per cent) and the likelihood of wheel slippage are indicated.

Sees Lumber Dearth

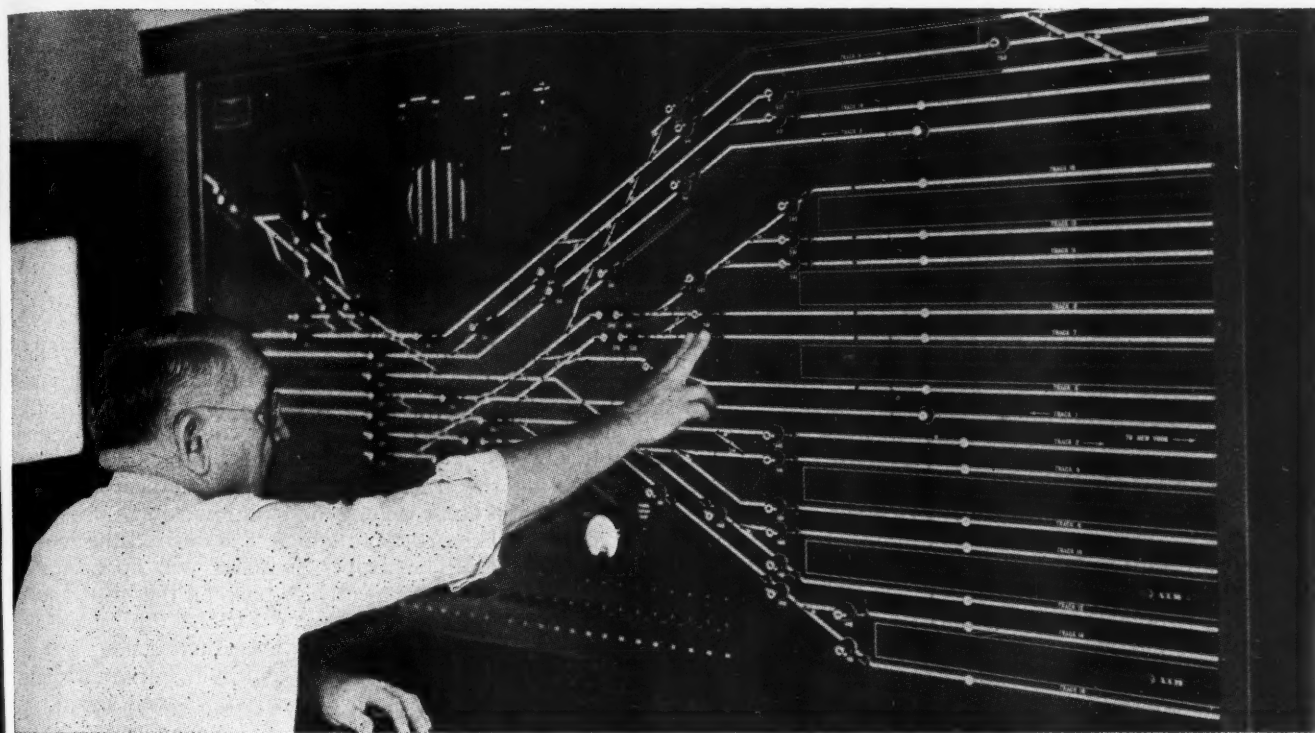
PREFACED with the terse warning that a lumber shortage of ten billion feet may be expected during 1944 unless prompt government action is forthcoming, the fourth interim report of the Patman Committee on Small Business to the House of Representatives makes sweeping recommendations for prompt action by Congress, administration agencies and the lumber industry to remedy one of the most critical production problems in the country. With, as the report points out, 1943 lumber production approximately 10 per cent less than in 1942, and with no evidence that 1944 production will exceed that of 1943, it is probable that lumber will retain its place as the Number One railway materials problem (*Railway Age* Jan. 1, 1944, p. 19) for some time to come.

After reviewing the national lumber situation and considering the problems of the Southern pine industry, the report includes seven specific recommendations designed to help solve the problems now confronting Southern pine lumbermen. These recommendations include adoption of some price advances, as recommended by J. P. Boyd, the W. P. B.'s lumber director; draft exemption for woodsmen; allocation of additional trucks to the lumber industry; and mitigation of tax and reconversion laws and rulings.

The report discusses the short-sighted policy of some of the production planners in substituting lumber for metals, the soaring military demands for crating lumber and their resultant effect on railway requirements. It is revealed that the Corps of Engineers of the War Department, acting as the central procurement agency for the Army, the Navy, the Maritime Commission and other federal agencies and their prime contractors, bought nearly 20 per cent of all lumber purchased in this country in 1943. At the first of this year the Corps of Engineers had pressing orders on its books for more than a quarter billion feet of Southern pine which it had been unable to locate and acquire for essential war uses. Continuing, the report adds:

"There is no evidence to show that lumber production in 1944 will exceed that of 1943. If present trends continue and no action is taken by the federal government to eliminate those factors which are at present admittedly retarding production, we may expect in 1944 to fall short by more than 10,000,000,000 board feet of meeting essential military and civilian demands."

After O. P. A. granted a satisfactory price increase for Southern hardwood, the committee points out that production spurted and numerous pine operators switched to hardwood production. At the same time pine production showed a steady decline which is continuing because of the shortage of manpower, too low or unadjusted wage scales, low price ceilings for lumber, the unavailability of stumpage and logs, and the lack of new equipment and replacement parts, as the principal causes



The New Interlocking Control Machine Is of the NX Type

N.Y.C. Installs Interlocking at Utica

Entrance-exit control replaces 146-lever unit-lever machine which was destroyed by a derailment

By R. B. Elsworth

Signal Engineer, New York Central, Albany, N. Y.

THE electric interlocking at the west end of the passenger station at Utica, N. Y., on the New York Central was destroyed by a derailment of a freight train on Saturday, February 13, 1943. The derailment was caused by a broken truck side frame on the thirty-first car of a train moving eastward on track 4, which was adjacent to the signal station building. The derailment occurred approximately 1.5 miles west of the signal station but the cars remained in alignment until striking the switches at the interlocking.

The Old Signal Setup

The signal station was 15 ft. by 64 ft., of brick and concrete construction up to the window sills on the second story, and of frame construction above. During the derailment, one car was rolled over this building, crushing the interlocking machine and crashing the concrete floor of the upper story down upon the relay assembly in the lower story. This interlocking controlled the west end of the passenger station layout and the freight yards, and also the junction between the Mohawk, Adirondack, and St. Lawrence divisions of the New York Central as well as junctions with branch lines of the New

York, Ontario & Western and the Delaware, Lackawanna & Western. The machine was the General Railway Signal Company unit-lever type with 146 working levers for 70 signals, 54 switch machines, 10 movable-point frogs, 2 derails, 3 mechanical locks, and 16 check locks.

As soon as the accident occurred, extra forces from the operating, track and signal departments were called. Trains were moved at slow speeds by cranking over the switch machines by hand and then blocking the switch points. It was snowing and the temperature was above zero at the time of the accident. During the night, the temperature dropped, and by Monday reached 27 degrees below zero. The traffic problem was further complicated by additional switching moves caused by cutting out train equipment which was affected by low temperatures.

By the third day, the weather had moderated slightly, and a start was made on installing head blocks and switch stands on the single switches. When this was completed, it was possible to turn over to the operating department for operation by switchmen one of the four ground stations where all of the switch machines had been disconnected. Canvas shelters or gate cabins were furnished as

rapidly as practicable for the ground men, and loud speakers were connected in on the telephone circuits to expedite the instructions for the movement of switches. It was not considered practical under existing conditions to install switch stands and pipe connections for the slip switches and movable-point frogs. Quicker and more reliable operation was provided by operating the slips and frogs through the machine motors from the main 110-volt interlocking battery. Knife switches with fuses were placed in the shelters adjacent to the slips. The switch and frog points were held in position by wooden blocks put in place by a track man, checked and in addition held by the plunger of the switch machine through the lock rod attached to the front rod of the switch. The signalman, after operating the switches by motor, immediately removed the fuses, then checked the position of the switch before reporting to the director. The fuses were carried in the signalman's pocket at all times except when actually required.

Plans for New Control Machine

It was determined that a minimum of critical materials would be required by using a model board control machine with model "B" relays. This would also reduce the size of the second floor of the operating building about one-half. A study of the track layout in relation to operating requirements determined that two complete double slips could be eliminated and that one other double slip could be changed to a single slip, thereby materially reducing the use of signal materials. The majority of the cable lines and outside wire connections were in good condition and could be reused in their existing positions.

On Monday afternoon, or less than 48 hours after the accident, an order was placed with the manufacturer for the new machine, together with the major relay assembly. It was agreed that the manufacturer would start at once with the standard material, that plans for the track model would be furnished by the railroad within nine days, and that complete circuit plans would be furnished within 21 days. During the period the interlocking plant was out of service, a maintenance renewal program which had been under way for several months was pushed. All switch mechanisms were taken out and thoroughly cleaned, cracked cases were welded and repainted and dynamic brakes added. Worn signal mechanisms were replaced.

The signal company proceeded as rapidly as practica-

ble. Although a major portion of the engineering staff and manufacturing facilities were engaged in war work which could not be set aside, this project was expedited and carried through to completion in accordance with the program. The last major item was the operating machine, which was placed in service ten days after arrival at Utica. On Sunday, July 25, all parts of the interlocking were working, and traffic was moving at normal speed by 4:00 p. m. that day.

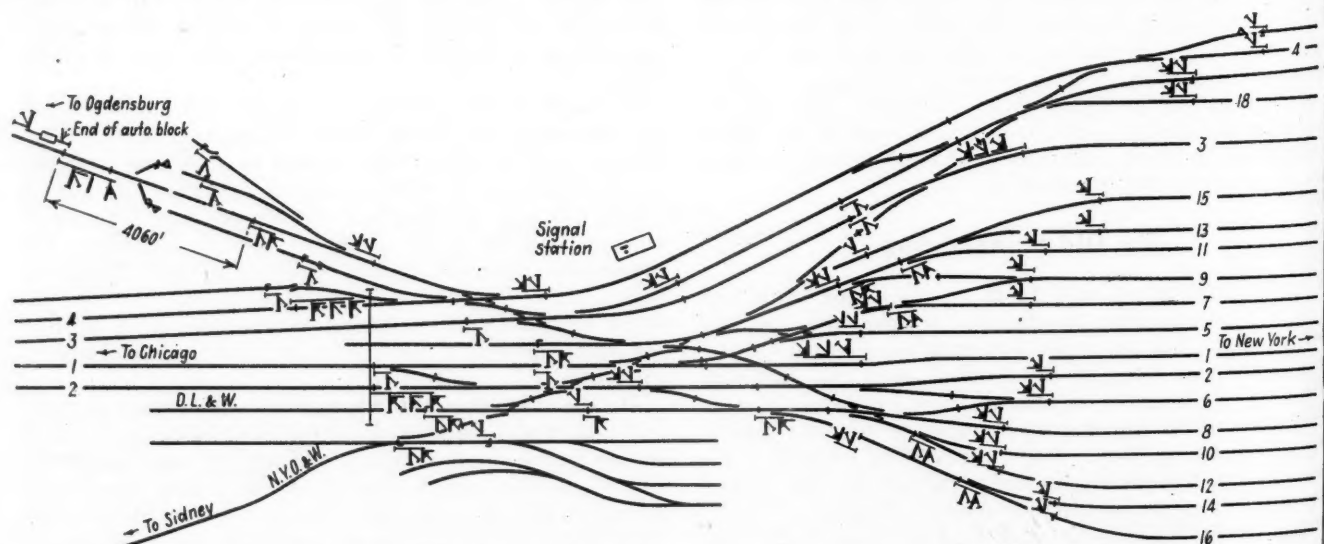
NX Type Machine

The new machine is of the type designated by the manufacturer as "Entrance-Exit" or "NX." The control switches and buttons are mounted on the track model. To authorize a train movement, the operator simply presses or turns an entrance button on the lines representing the track where the light indicator shows that a train is approaching or standing, and pushes an exit button on the track to which it is desired the movement be made. The proper switches will operate and the signals clear automatically. A push on the "Entrance" knob will initiate a route calling for the top or middle signal unit, permitting normal or medium speed; a turn instead of a push on the same knob will initiate a route calling for the bottom unit or restricted speed signal.

Performance Widely Commended

The working of the new machine has, with its performance, received general commendation from all concerned. The improvement in train operation is illustrated by the freight interchange. These movements are made between the N. Y. O. & W. or the D. L. & W. tracks on the extreme south of the plant and the N. Y. C. yard on the extreme north. With the old machine, such movements were frequently delayed a considerable period waiting for a sufficient interval between through movements on all tracks to operate the individual levers and restore them after the movement. With the new machine, these 22 switches will line up automatically and the signals clear within eight seconds from the time the movement is initiated. Much smaller intervals between trains can thereby be used and valuable waiting time saved.

The major items of signal apparatus for this installation were furnished by the General Railway Signal Company. The plans were prepared by the railroad and the field construction performed by railroad forces.



Track and Signal Plan of the Interlocking at the West End of Utica Station

What Policy on Depreciation?

Widely different approaches to this problem pose question of which is wisest course, both to reflect facts accurately and to protect carrier's resources

By G. B. McMillen

DEPRECIATION accounting is here. The railroads have been, perhaps, the last large industry to accept the principles of depreciation accounting, which have been generally adopted by the accounting profession as sound financial policy. The emphasis has now been shifted from "Why?" to "How?", and the answer may be one of the toughest problems faced by the railway accountant and engineer. In fact, to some the problem appears insoluble and these persons give it scant and often wholly inadequate consideration.

What Is Depreciation?

The concept of depreciation is probably the most controversial of the many which the engineer has to face. Professor Bonbright in his "The Valuation of Property" notes no less than four distinct concepts of what constitutes depreciation. He stands firmly on the proposition that depreciation in valuation is not and should not be the same as the depreciation accruals accounted for on the books of an industry.¹ Recently the Engineering Section of the Bureau of Valuation, Interstate Commerce Commission, expressed the view that the age-life ratio which depends solely on property life, should be used in valuations as well as for the determination of depreciation rates. This angle of the problem is too far afield for the present discussion, but serves to illustrate the disagreement which exists between authorities. Regardless of pronouncements, it is probable that the valuation engineer will continue to consider such questions as the present worth of future earning capacity of existing facilities, compared with a similar computation for new facilities. The general problem will continue to be studied by such men as Roos, Hotelling, and Taylor, who have given us complicated mathematical formulas, the use of which depends on data which are non-existent or cannot be obtained with any reasonable effort.

To the accountant, however, the problem of depreciation accounting is, through definition, a much simpler one—yet still highly complicated, and involved in its ramifications. Some of the underbrush has been cleared away; the so-called straight-line formula has been adopted; and from the accounting standpoint the question is now simply one of *cost proration*. The crux of this concept is the life of the property.

Not without some cause have the railroads been reluctant to adopt depreciation accounting. Under the practice of retirement accounting, while it was admitted that the cost of asset consumed in production was not shown on the financial statements until *after* such consumption, still the book cost was shown with reasonable accuracy as a charge against production at that late time. What is gained in substitution of an estimated depreciation charge which may be grossly inaccurate,

for a reasonably accurate charge even if the latter is a generation late? Enter the experts on service life. These experts are convinced that property life can be forecast with reasonable accuracy. However, there seems to be no more agreement between these experts on property life than there is between the proponents of different kinds of depreciation.

The minutes of a recent conference between the Engineering Section of the Bureau of Valuation, Interstate Commerce Commission, and carrier engineers amply bear out this statement. The football is to be kicked around, then passed around the conference table and inflated or deflated according to the opinions of the experts until the observer is convinced that little is actually known about property life on railroads.

The picture is complicated by the entrance of the Bureau of Internal Revenue as another expert. The opinions of the Bureau of Internal Revenue on property life, the treatment of casualties and obsolescence, the proper treatment of salvage, etc., seems to differ from those of the Bureau of Valuation, and from those of railroad engineers.

This situation might be merely amusing and one might feel like agreeing with those who say the opinions are in substantial agreement, were it not for the tremendous importance which property life, as allowed by the Bureau of Internal Revenue, assumes in its role of depreciation determination for income-tax purposes.

Depreciation Accounting and the Pocketbook

Many railroad men are of the opinion that this whole problem is a tempest in a teapot and are governed primarily in their views by the prospects for light or heavy charges for depreciation in the maintenance account as compared with the charges which have been customary under retirement accounting. What does it matter what amounts are charged so long as they are "in-line" and will not prove to be excessive when business falls off?

Based on this or similar reasoning, some carriers want long life for depreciable property, while others want a short life, because of its effect on operating expenses as an income-tax deduction.

To call a spade a spade, these opinions must all be cataloged as "expediency opinions." They are not based on factual data on life, and action in accordance with them is very likely to become a boomerang. In depreciation, as in most other questions involving profit on one side offset by loss on the other, it is safer in the long run to "hew to the line." No one has yet invented a process by which in this world it is possible to "eat our cake and have it too" for any length of time. The facts, however, are not easily ascertained, and their correct interpretation is possible only after arduous study of methods. This part of the problem must remain

¹ Bonbright, James C., *The Valuation of Property*, McGraw-Hill, 1937.

unconsidered for the moment. First it is necessary to realize the effect of even small differences in property life and (neglecting salvage) its reciprocal, the depreciation rate, on income-tax payments.

Consider a railroad with a depreciable property base of \$200,000,000. A change of one-onehundredth of one per cent (.0001 or .01 per cent) in the depreciation rate will mean a cost (or saving) of \$8,400 to \$16,200 in income tax, depending on the bracket applicable to this carrier. If the base is \$500,000,000, this cost runs over \$20,000 and may be as high as \$40,500.

How much is it necessary to vary the life of this property to make this change in tax-payment? Suppose a depreciation rate of 1.75 per cent is increased to 1.76 per cent; the corresponding change in property life is only a little over thirty-two one-hundredths of a year (.324675 year). If a rate of 2.25 per cent is reduced to 2.24 per cent, the property life is affected to the extent of less than two-tenths of a year (.198413 year). These appear to be absurd changes in life, as indeed they are; yet the pocketbook is affected to the extent of thousands of dollars.

Conference changes in property life are usually as much as five years. The accompanying table shows the increase in income-tax payments due solely to increases from 55 to 60 years, and from 45 to 50 years in property life for the two bases.

Increase in Income-Tax Payment with Increase in Service Life

	\$200,000,000 Base	\$500,000,000 Base
Life increased from 55 to 60 yrs.		
* 42% of (1.82%—1.67%)	\$126,000	\$315,000
† 81% of (1.82%—1.67%)	243,000	607,500
Life increased from 45 to 50 yrs.		
42% of (2.22%—2.00%)	184,800	462,000
81% of (2.22%—2.00%)	356,400	891,000

* Normal income-tax rate (1943) without excess-profits tax.
† Normal tax (in excess-profits tax brackets) plus excess-profits tax rate (overall, 1943) applicable to all income (or reduction thereof) while in excess-profits tax brackets.

Of course these figures apply to the entire base, but it takes only consistent juggling of and whittling on the lives of individual classes of property to produce the same result. The government claims (and this claim should be accepted) that no corporation or individual is required or expected to pay more than a "just" income-tax. However the Commissioner of Internal Revenue has placed the *burden of proof on the taxpayer* to show that property life should be different from that which he considers to be correct. When a quarter-million dollars or even much less per railroad per year are at stake, is it worth while for the railroads jointly and/or severally to study this problem intensively? As long as the "no-retroactive-claim" ruling of the Commissioner of Internal Revenue is in effect, it is imperative that depreciation rates be high enough to cover the service loss in the property *for each year* as that loss occurs.

What Is Wrong with "Straight-Line Formula?"

The question of the difficulties inherent in "straight-line" depreciation will here be considered solely from the standpoint of property life. Other important problems such as the interest rate are excluded; the problem of life is bad enough.

Either it is possible to determine the service-loss for any definite year or it is not possible. If it is not possible, depreciation accounting as now set up and required for income-tax purposes should be condemned. This conclusion follows from the ruling that there may be

Advantages of Accuracy in Depreciation Charges

From the long-run view, it seldom pays to adopt policies which run at a tangent to facts. In the determination of charges for depreciation, motives of expediency may offer temptation either to maximize such charges, to lighten the tax burden, or to minimize them, in order to avoid operating expenses of an embarrassing magnitude in years of poor business. The author of this article, a railroad engineer who has studied the problem intermittently since 1927, here presents his conclusions. He believes it is worth while to calculate statistically correct depreciation rates for all depreciable railroad property for which there are adequate and reliable data; that such rates when accepted by the Bureau of Internal Revenue will insure against injustice of income taxation on sums which are really operating expenses; and that, at the same time, charges thus scientifically developed will not saddle a carrier in times of poor business with charges to expenses any greater than the expense actually incurred.

no recourse to correct past errors, and from the fact that, if depreciation rates are changed in the future *because they have been too low in the past*, the probabilities are that *in the future* the effect of such changes on income-tax payments will be nil, whereas in the past when the rate should have been higher, the effect was pronounced.

However, for the moment, assume that it is possible to determine with reasonable accuracy definite property life fitted to the property base for any definite year. Does the straight-line formula as applied then give the correct service-loss (depreciation) assignable to a definite year? In other words, does this formula as used live up to its name and, as is implicitly assumed, spread the service-loss evenly over the service-life?

It is an obvious fact that one unit with ten years' life should have one-tenth of the service-loss charged off each year, and another with fifty years' life should have one-fiftieth of the service-loss charged off each year. The following facts, however, are not so obvious.

Suppose a depreciation rate for the two units *as a group* must be established.

(a) The usual procedure is:

1 unit—life 10 years
1 " — " 50 "
—
2 units 60 unit-years
and 2)60

30 years, weighted average life
Annual rate (neglecting salvage): 1/30 or .0333 or 33.33%

Note that *reciprocals* of average lives are used in the straight-line formula as usually applied. It can easily be shown that reciprocals of average lives produce an *harmonic* average of the depreciation rates which normally apply to the individual units, thus:

1 unit rate .10 or 10%
1 " " .02 or 2%
and 1/10 plus 1/02 or (10 plus 50)/2 equals 30, and
2
equals .0333

This harmonic average is always lower than the correct arithmetical average or mean which must be used whenever it is necessary that (as in cost proration) the *sum of the parts must equal the whole*.

(b) The correct group rate to produce straight-line amortization of each unit, but applicable to the group for the first ten years is:

1 unit, rate .10	
1 " " .02	
—	
2).12	
—	
.06 or 6.00% weighted average rate.	

If the 3 1/3 per cent rate is used, insufficient depreciation will be accrued on the two units during the first ten years while both are in service, and it will be necessary to accrue 3 1/3 per cent on the 50-year unit (which should have a 2 per cent rate) for forty years more before 100 per cent depreciation is accrued on both units. Meanwhile it is probable a new computation will be made on the new base and the rate lowered.

But suppose at the end of ten years the unit of 10-year life is replaced by another with 10-year life. At the end of twenty years the amortization accruals are hopelessly inadequate if the 6.00 per cent rate has not been used:

Incorrect				Correct			
Base	Rate	Years	Total Accruals	Base	Rate	Years	Total Accruals
2	3 1/3%	20	1.33	2	6%	20	2.40

This error is evident from the fact that two ten-year units have been retired and should be in the reserve, while the 50-year unit has (or should have) accumulated % of its depreciation.

Many will say immediately that this sort of treatment; i.e., computation of weighted average rates instead of weighted average lives, is not necessary because the property base has been broken down into *homogeneous* groups or sub-classes of property, all the units of which in each group are subject to the same retirement forces. For these homogeneous groups it is contended that average lives can be used and that, only when it is necessary to combine two or more of these groups to form a larger group (or primary account) containing heterogeneous or unlike properties, is it necessary to compute the annual depreciation of each separately and sum the amounts to get a weighted average rate for the larger group.

Retirement Behavior Individualistic

The fallacy in this sort of thinking lies in the elementary fact that for these supposedly homogeneous groups an *average* life is necessary. The fact or fiction of homogeneity is purely one of degree, and in fact depends in small part on physical identity of the units in the group. The assumption that the same retirement forces operate equally on all physically homogeneous groups is unwarranted. Retirement forces are applied to *individual* units in the group, and their retirement behavior proves that there is almost an entire lack of homogeneity in the *property life* of the group. A homogeneous sub-class of property would have a *life*, not an average life. Such a group of property units or even of human beings does not exist and cannot exist outside of the ken of a Supreme Deity who could know that all things in a certain city or state are to be destroyed when they reach the same age.

The following premises are stated as facts. They

are capable of pragmatic proof; but only to those who are willing to learn the truth by much effort and study.

(1) A proper analysis of the life data covering any supposedly highly homogeneous sub-class of identical units of property will show retirements at all ages from a few years to many years which may be two or three times the average life.

(2) The trend of these retirements forms a (usually compound) frequency curve.

(3) The summation of the retirements of a large original group of property units whose lives are known forms the inverted "S" curve called the survivor curve, which with little change in general shape also applies to human lives.

(4) The only sound statistical analysis of property (or human) life on the group basis is accomplished by use of this survivor curve and its values which form the life table.

Failure to Profit by Experience

These truths are not newly discovered truths. Life insurance companies have employed men who have studied this problem for the past century and developed an exhaustive literature on the subject. It is safe to say that no errors in analysis of group life now being made were excluded from the efforts of those who have left us this literature. The situation is deplorable only in that many of the analysts of property life fail to profit by the recorded experience of the pioneers who traveled this road. Insurance companies do not use weighted average lives as usually employed in the so-called "straight-line" formula. While it is true that insurance rates depend on probable *future* lives, just as depreciation rates depend on probable *total* lives, it must be noted that those probable future lives are activated or made effective through the life table and its underlying probabilities of dying or living at *attained ages* when insurance is taken out, rather than by direct use of the corresponding weighted averages of the lives themselves. *Such weighted-average lives are not used (as in the so-called "straight-line" formula) whether computed for a life just starting or at attained ages.* Why not find out how this problem should be correctly solved?

Whether these lives come from the survivor curve or not, depreciation rates therefrom do not spread the service-loss evenly over the service-life, year by year as income tax must be paid. As applied to unstabilized property bases (and it is doubtful if such a thing as a stabilized property base² exists or ever will exist, just as it is true that the human population base is never free from large movements in or out) the probabilities are that such rates will never "even up" the depreciation charges.

Of course, in the simple example covering two units, one having a 10-year life and the other having a 50-year life, if the 10-year life item is replaced by one having an unknown future life, the problem can not be solved for these two units only. But if it is known that a depreciation base composed of a large number of units which can be grouped in large numbers at attained ages, will (on the average) follow a mortality law expressed in a life table or survivor curve, then it is possible from this life table to develop composite (weighted average) depreciation rates (not lives) based on attained ages. If then the depreciation bases are properly set up by attained ages, yearly, and the weighted average rates so determined are applied to the bases, the correct (from

²A stabilized property is one for which the following statements are true:

(a) The property has existed for a period at least equal to the maximum (or oldest) age at which retirements can or will reasonably occur.

(b) There is neither growth nor recession in the number of units in the property base from year to year, i.e., all additions replace retirements and retirement without replacement does not occur.

experience) amortization for any following year will be determined.

This is a workable group method which gives results equivalent to the unit method, with the added advantage that the law of probabilities applicable to a large group renders the prediction comparatively reliable, whereas such a prediction for individual units would have no value.

Unproved Claims Made

No quarrel is intended with those who claim that property life is not susceptible to such analysis. Often it is impossible to collect sufficient data, or sufficient data may be unreliable data. Again, future prospects may far outweigh the result of any experience. Some claim that, even if there is no reason to believe that known future prospects upset the apple cart, still one can not predict the future life of property units from experience records even when these are adequate and factual. These persons usually make the unproved claim that such "scientific" rates will not conform to managerial policies, changes in the arts, changed economic conditions, etc., etc., without having any specific examples of such upsetting conditions in mind.

This attitude is, too often, an excuse for a lazy, unsound and unreliable solution for the problem. Each period in past experiences usually was filled with the effect of managerial policy, changes in the arts, and economic upheaval; such factors are reflected in the experience data, and graduation can usually develop the mortality law which will reflect such causal connections. It is the mere specter of future conditions of an entirely similar nature which these pessimists fear. How shall this specter be evaluated if not by resort to past experience? Such evaluation, in fact, gives the only sound basis for a statistical solution of the weight which should be accorded to future prospects where there are no definite facts which can be separately measured and their future effect foretold. Such persons who go about saying, "it can't be done" are quarreling with the group basis of depreciation accounting as established under the so-called straight-line formula, but they do not realize this fact and only sink deeper into the quagmire when they accept mere guesses on service life.

Is Depreciation Insurance the Solution?

The only way to find a conclusive answer to this question is to *try it out on a sufficiently broad base*. All forms of insurance rest firmly on the mathematical fact that *risks can be spread*—no matter what the type of risk it can be discounted. Basic mortality trends can be established from proper data. Depreciation rates therefrom will not only closely follow the facts, but also will be sufficiently flexible to give the taxpayer reasonably correct depreciation at all times; whereas estimates and judgment forecasts *without this background* may be so inaccurate that a substantial unjust cost to the taxpayer can never be recovered. Perhaps the ultimate and only satisfactory solution will be depreciation insurance by a large, strong, mutual company; a plan which has been advocated by a number of writers and which ultimately would lead to sound depreciation rates. It must not be overlooked that over or under statements of depreciation expense are misleading and costly, not only to the railroad themselves, but also to the public, the investor in railroad securities, and state taxing bodies. Under such circumstances the expediency argument falls down and it is evident that rates should be as accurate and sound as good engineering and statistical analysis will permit.

Communication . . .

Doubts Employees Would Have Gone Out

TO THE EDITOR:

BUTTE, MONT.

Every paper in America and the rest of the world should publish your article, "The Threatened Railway Strike" (December 25 issue). Why? Simply because the public just can't understand the real strike situation, and your fine publication doesn't reach enough people outside of the railroads. Because of this, the public lays the blame of this situation right on the railroads' front steps and their 99 per cent loyal employees.

A man once asked me what my opinion was of what started this war. Well, I'm just small fry in a large pan. One of the non-operating class whose only regret is he won't be able to continue operating for his railroad forever. Yes, age will stop me, nothing else. Certainly, not strikes. Oh yes, about what started the war, years of studying human nature the hard way, made that an easy one, just one word, "Selfishness" on the part of those who want what isn't theirs, the almighty dollar, control of the world, control of you and me, and don't forget the railroads and the great men who built them long before unions took them over.

Pardon me if I am wrong about that—I'm not referring to the members who pay out their good American dollars in dues. I refer to those gentlemen who call themselves the heads—the very same gentlemen who enjoy reading what they have said the railroad employees will do at their bidding. The men who say we are all ready to strike. At a time like this, ring men, would call it striking below the belt. Us poor dubs don't know just what to call it.

But these loyal employees do know that the whole world is pointing a nasty accusing finger at them as willing strikers and traitors to their country and company when, the truth is, these 99 per cent of railroad employees are as loyal Americans as any group in the land.

Another truth is, railroad employees had no idea or even a thought of going on strike for any reason—until they heard it blasted over the air and saw it in bold-face headlines that they were. What did we do then? We asked each other, did you hear that? Did you read it? And looked at each other in astonishment. Once again we were that little goat.

The man who would strike, tie up America's great transportation system, delay troop movements from reaching the fighting lines, delay the whole war, and the return of our loved ones just for 32 to 80 cents a day. Pretty cheap aren't we. That's the picture painted of these loyal American railroad people.

Whom can we thank? That's easy, too, the gentlemen who said we didn't mean it, we were just bluffing. We wanted our government to know just how all-powerful we can be at the other fellow's expense (but not in those exact words). I mean the union official who benefits mostly by the dues these employees pay (and what dues!). And in return promise justice, fair play and protection from the big bad railroad officials. Those railroad officials in 99 per cent of the cases came to their positions without the help of those great protectors. They have red blood running through their veins, men who didn't have time to worry about the clock, but always have time to listen and watch for the man who can fill their shoes when they have passed over the great divide, regardless of his affiliation.

Men who can say to the union heads: There was a time when you gentlemen were a God-send to the under-dog, remember? We supported you 100 per cent, too. But you're speeding away from that now, and coming to the railroad crossing. Stop, look and listen. Disaster may lie ahead.

No, I'm not one of them, obviously. I'm no union head either, not even a member. I'm just one of those non-operating fellows who is grateful for his job and to the men who have been so human and understanding—the railroad officials.

I don't believe there is a man on any railroad, or woman either, who would strike at this time, and that's no bluff either.

What right have I to speak for 99 per cent of America's railroaders? I don't know. What right have union heads to include and point, or have pointed this nasty finger at me,

S. & D. C. DEPT.

Railroads-in-War News

Shows Where Roads Can Employ Women

Report by O. D. T. provides a "realistic basis" for increased utilization

A report in the form of a comprehensive survey intended to form a "realistic basis for increased utilization of women" on American railroads has been made public by the Office of Defense Transportation. It was prepared by Dorothy Sells, chief of the O. D. T. personnel supply section, and Olive Dennis, on loan to O. D. T. from the Baltimore & Ohio, for which road she is engineer of service.

Pointing out that four principal roads have employed women to the extent of 12 per cent or more of their total payroll, the study goes on to say that the number of women in the employ of all Class I roads could be increased from 103,000 to 164,000 if all roads hired them in that proportion. Actually the percentages of women employed by Class I roads range from 13.3 per cent down to 2.8 per cent, the report indicates.

Jobs Women Can Do—The 42-page document is available at the O. D. T. office of information, Washington 25, D. C., on request. Its findings are based on an on-the-spot analysis of the work performed on one division and in one shop and store house of what is described as a "typical western railroad." The functions of each department and the principal classification of work in each department are briefly stated; and a list of jobs within that field in which women can be employed efficiently, in the authors' opinion, then follows.

In connection with maintenance of way, for example, the following comment is made: "Heavy track work, involving renewals of ties and rails, is done by extra section gangs, usually housed in camp cars and moved from one site to another as the work progresses. Because of these housing conditions and the weight of the material handled, women cannot be used efficiently for heavy track work. The lighter track work is performed by regular section gangs, assigned to definite sections of track. Women can be used for much of this lighter track work, particularly in situations where they can return home at night. They can handle practically all the track work required in freight yards and on side tracks and on main lines can be used in mixed gangs to assist in dressing track."

Specific Suggestions—Among maintenance of way jobs listed as "suitable for women" are the following: Flagman. cleaning trash from right of way; destroying weeds and grass; cleaning ditches and cul-

6,000 Take Job Training Course

Since last summer some 6,000 railway employees of supervisory rank have "increased their skill in instructing men on the job" through the "show how" method as a result of "job instruction training, job methods training and job relations training through the 'Training Within Industry' program of the War Manpower Commission," according to a January 28 announcement of the Office of Defense Transportation.

Similar instruction has been given to supervisory employees in other branches of transportation. The courses are said not only to have facilitated the instruction of "green" employees, but also to have speeded up evaluation of their talents, while in addition, in some cases, higher interest and better morale were claimed.

verts; leveling slopes; cleaning and oiling frogs and switches; de-icing switches; snow removal; tightening track bolts and spikes; cleaning switch lamps; cleaning, edging and packing ballast; leveling dirt.

The study concludes with a 13-point program for getting women to work for a railroad, in which are mentioned such problems as hiring methods, meeting absenteeism, training foremen, and setting pay rates.

Broadens Joint-Action Program for Over-the-Road Trucks

The list of methods by which common carrier truckers in over-the-road operation may engage in joint-action plans have been expanded to include the suspension of less-than-truckload shipments and the co-ordination of schedules between two or more points. The broadened program was provided in Amendment 6 to General Order O. D. T. 3, Revised, effective January 25, the amendment following the issuance of an amended master certificate by the chairman of the War Production Board.

The W. P. B. master certificate permits the adoption of joint-action plans, when approved by O. D. T., without the necessity of separate approval of such plans by the chairman of W. P. B. and the Department of Justice. In addition to the two new joint-action devices noted above, the approved list of conservation methods includes reciprocal exchange of shipments; pooling of traffic or revenues; joint loading and operation; diverting traffic and joint operation of terminals and terminal services; arrangements for interchange of equipment; and appointment of joint agents.

Six Colonels Put Uniforms on Shelf

Retirement by Army concludes government intervention in wage controversy

Six of the seven railroad presidents who were commissioned colonels in the Army when government control of the railroads was put into effect on the eve of the recent threatened strike were retired to private life, subject to recall in case of emergency, on January 31. Col. R. B. White, president of the Baltimore & Ohio, will likewise be retired on February 10, War Department sources have revealed, thus virtually concluding the Army's brief assignment to the job of keeping traffic moving in the event the strike materialized.

Meanwhile it became known that the special emergency board of which Judge Elwyn R. Shaw, chief justice of the Supreme Court of Illinois, was chairman had informed the President that it had concluded its procedure upon the settlement of the non-op wage dispute by agreement between the parties on terms acceptable to Stabilization Director Vinson. Certain roads, particularly short lines, which were not represented by the three carriers conference committees which participated in that agreement, and in those entered into by the five operating brotherhoods, were understood to be arranging wage increases for their employees on the terms of settlement approved by the government.

Jewell Thanks Truman—The text of the non-ops' agreement was printed in the Congressional Record of January 27 on request of Senator Truman, Democrat of Missouri, along with a letter from Bert M. Jewell, chairman of the so-called 15 co-operating organizations, thanking the Senator for his sponsorship of Senate Joint Resolution 91, the purpose of which was to give Congressional approval to the straight hourly increase of 8 cents for the non-ops which was arranged for in their August agreement with the carriers that Director Vinson declined to approve.

This resolution passed the Senate, but was pending in the House committee on interstate and foreign commerce at the time the 9-to-11 cents increase was negotiated, bringing the non-ops' wage controversy to a close.

In this connection Mr. Jewell wrote Senator Truman as follows:

"It is our understanding that the Interstate and Foreign Commerce Committee of the House of Representatives is preparing to report to the House certain amendments to S. J. Res. 91 which are, we understand, intended to make the Railway

Labor Act, as amended, workable under existing conditions.

"It is very necessary, indeed, that additional legislation be passed if the Railway Labor Act is to function as the Congress originally intended it should, and in due time we hope that you will assist in this matter."

Back to Railway Labor Act—The amendments to the Truman-Crosser resolution (S. J. Res. 91) to which Mr. Jewell referred were designed to relieve the stabilization director of his function of determining whether or not wage adjustments reached through the operation of any of the machinery provided by the Railway Labor Act are in conformity with the government's stabilization formula. The House committee last week agreed to report the resolution to the House with the following language included:

"That in any dispute between employees and carriers subject to the Railway Labor Act, as amended, as to changes affecting wage or salary payments, the procedures of such Act shall be followed for the purpose of bringing about a settlement of such dispute. Any agency provided for by such Act, as a prerequisite to effecting or recommending a settlement of any such dispute shall make a specific finding and certification that the changes proposed by such settlement or recommended settlement are in conformity with such standards as may then be in effect, established by or pursuant to law, for the purpose of controlling inflationary tendencies. Where such finding and certification is made by the National Mediator Board, or by an Emergency Board established under such Act, it shall be conclusive, and it shall be lawful for the employees and carriers, by agreement, to put into effect the changes proposed by the settlement or recommended settlement with respect to which such finding and certification was made."

The majority report of the committee approving the amended resolution was filed with the House on February 2. At the same time Representative Bulwinkle, Democrat of North Carolina, received permission to file a minority report the following day.

As noted in *Railway Age* last week, the retirement from active duty as colonels of the seven railway presidents who were made regional directors of railroads during the period of Army control depended upon the execution by substantially all the roads involved of formal releases freeing the government from liability with respect to any claims against the roads arising during that period. At the end of January such releases had been obtained from most of the roads. The delay of 10 days in making Col. White's retirement effective was understood to have been arranged to allow additional time for the completion of the necessary formalities in certain instances under his jurisdiction.

N. & W. Man Appointed Deputy Solid Fuels Administrator

Appointment of Fred K. Prosser, of Roanoke, Va., as assistant deputy solid fuels administrator, was announced February 2 by Solid Fuels Administrator Harold L. Ickes.

Mr. Prosser, who will concentrate on

problems relating to coal transportation, has been granted a leave of absence from his position of coal traffic manager of the Norfolk & Western, with which he has been associated since 1922, to serve in the wartime governmental post. He will succeed Fred A. Dawson, who resigned recently to become superintendent of the Ohio division of the New York Central, with headquarters at Springfield, Ohio.

Mr. Prosser was born in Richmond, Va., 54 years ago and earned the degrees of Bachelor of Science and Chemical Engineer at Virginia Polytechnic Institute. He began his career as a mining and civil engineer in May, 1912, in Indiana, Pa. Next he served as an engineer with the Clinchfield Coal Corporation of Dante, Va., and from November, 1913, to November, 1920, was associated as assistant chief engineer and chief engineer with the Clearfield Bituminous Coal Corporation at Clearfield and Indiana, Pa. In 1920 and 1921, he left coal mining temporarily to take charge of construction work in Scranton, Pa., and to serve as chief engineer and general superintendent of the Wisconsin Granite Company, of Chicago, Ill.

He joined the staff of the Norfolk & Western in 1922 as a mine rating commissioner, became manager of its coal department in 1931 and became coal traffic manager in 1934.

Seeks Lower-Priced Diner Meals for Soldiers

Representative Edwin Arthur Hall, Republican of New York, has introduced House Resolution 416 which would put Congress on record as requesting "the railroads of our nation to lower food rates in their dining cars to service men and women and re-establish these existing rates at popular restaurant prices."

The first of the resolution's three "whereases" asserts that "the men and women of our armed forces are being charged unreasonably high rates for food on railroad trains while traveling." The other two follow through to say that the service men and women cannot afford to pay such prices, and that the railroads should give them "special consideration."

All "Reefers" Needed to Handle Perishables, Says O. D. T.

The Office of Defense Transportation has called for drastic curtailment of the use of refrigerator cars by all shippers during the next two months to alleviate the current shortage of such cars in the perishable food producing states. "The supply of refrigerator cars is becoming tighter with each day's loading, and a restriction in their use is necessary if we are to transport the fruits, vegetables, seed potatoes, and other perishable products and move them at the proper time to avoid loss," the O. D. T. announcement said.

Refrigerator cars are now in great demand for the movement of seed potatoes from Maine, the Red River Valley in the Dakotas and Minnesota, and from Idaho to the southeastern states for planting, and their movement cannot be deferred to a later date, as is the case with some other commodities, the statement emphasized.

Shippers of beer, wine, and canned goods have been asked to reduce their require-

ments for refrigerator cars by 50 per cent during the next 60 days. If this reduction is made voluntarily, it was pointed out, shippers of such products "may avoid the imposition of an Interstate Commerce Commission service order." There is no restriction on the use of refrigerator cars destined to perishable food producing areas where shortage now exists, such as the Red River Valley of Minnesota and the Dakotas, Idaho, Nebraska, Colorado, California, Texas, Florida and Maine.

Asks Men to Put Their Back Pay in War Bonds

As a step in the Treasury Department's campaign to get invested in War Bonds a substantial part of the "windfall" coming to railroad employees in the form of retroactive pay increases resulting from the recently effected wage adjustments, Secretary of the Treasury Morgenthau has telegraphed presidents of Class I roads the following appeal:

Now that wage rates of your employees have been determined on a basis involving considerable retroactive pay, I ask your cooperation in persuading the men and women of your organization to invest as much as possible of this retroactive pay in War Bonds. There is a joint War Bond Committee on practically every American railroad, usually headed by an executive officer. We are asking the help of these committees but your own influence and support as head of the organization is important. Please urge your workers to invest a maximum portion of their retroactive pay in War Bonds during the fourth war loan drive.

A telegram of similar purpose also was sent by Secretary Morgenthau to the heads of all rail brotherhoods and unions. In addition to pointing out that such "patriotic" action by the employees would help speed up victory, this message stressed the point that such use of retroactive pay would "reduce inflationary spending on the home front."

Lower Ceiling on Fence Posts

The Office of Price Administration has issued Amendment No. 2 to Revised Maximum Price Regulation No. 324, reducing the concentrators' mark-up on sales of fence posts to industrial users to 15 per cent from the previous mark-ups of 25 to 33 1/3 per cent.

The amendment which became effective February 5 was described in the O. P. A. announcement as an action under which "railroads and other industrial consumers will pay materially less for fence posts." It was pointed out, however, that retail lumber yards may continue to charge the 25 to 33 1/3 per cent mark-ups on sales of fence posts to any buyers, including industrial consumers.

Also, the amendment establishes specific dollars-and-cents concentrators' ceiling prices for cedar posts in New England and New York, the new ceilings being about 10 per cent above the previous ones based on the March, 1942, prices of individual sellers. A shift the other way—from specific dollars and cents to the individual prices of March, 1942—is made with respect to ceilings on posts produced in Washington and Oregon west of the crest of the Cascade mountains. This was "necessary" because the producers involved "were able to obtain an abnormally high price by the use of the Sandpoint, Idaho, basing point in figuring transportation additions on delivered sales."

Another change is the increase of 15 per

cent in the estimated weights for Tennessee and red cedar posts which are used in computing maximum freight allowances, this "to more accurately reflect increased weights resulting from shipment of fence posts in an unseasoned condition."

O. D. T. Allocates Barges

The Office of Defense Transportation recently allocated fifty 1,250-ton, all-steel, dry cargo barges to 10 inland waterway transportation companies. The government-owned Inland Waterways Corporation, operator of the Federal Barge Lines, will get 10 of the barges, and a like number will go to the Mississippi Valley Barge Line.

The O. D. T. announcement stated that some of the barges are now coming from the builders, and the last of the 50 are expected to be completed in April.

St. Louis-California L.c.l. Car Pool Arranged

Upon application by the roads involved, the Office of Defense Transportation has authorized pooled merchandise car operation from St. Louis, Mo., to Los Angeles, Calif., and San Francisco, Calif., through the following provisions of its Supplementary Order ODT 1-2:

The Wabash will load and forward a car or cars from St. Louis to each of the California destinations on six days of each week, alternating the routing daily so that on three days of the week each movement will be by the Atchison, Topeka & Santa Fe beyond Henrietta, Mo., and on the other three days by the Union Pacific to Los Angeles or the Union Pacific and Southern Pacific to San Francisco from the Wabash connection at Kansas City, Mo. Routing instructions may be disregarded when necessary to permit the forwarding of traffic in the first merchandise car departing from St. Louis to the appropriate destination. The order became effective January 24.

Signalmen's Auxiliary Head on O. P. A. Committee

Mrs. Laura Essman of Kansas City, Mo., grand president of the Ladies Auxiliaries of the Brotherhood of Railroad Signalmen of America, has been appointed to the Consumer Advisory Committee of the Office of Price Administration.

Mrs. Essman's appointment brings to three the number of women from labor organizations' auxiliaries on the committee. She is also second vice-president of the American Federation of Women's Auxiliaries of Labor. Her husband, Charles L. Essman, is general chairman of the Brotherhood of Railroad Signalmen of the Chicago, Burlington & Quincy.

Truckers Told How to Go About Permits for Expansion

Administrative Order O. D. T. 15, effective February 1, prescribes the procedure to be followed by motor truck operators in applying for Office of Defense Transportation approval of plans to extend present services or to institute new ones. Conditions under which such approval will be granted by the manager of the O. D. T. motor transport district office are set forth, as well as the information to be supplied by the operator and the procedure he may

follow on appeal in case the application is not approved by the district manager. The order applies to common, contract and private carriers. Truck operators are not relieved by it of any existing requirements to obtain appropriate authority from state or federal regulatory authorities for new operations.

A similar prescription of the procedures to be followed in applying for special permits exempting truck operations from requirements of O. D. T. orders is contained in Administrative Order ODT 14, effective February 15. Such applications likewise go to the O. D. T. district managers.

I. C. C. Service Orders

The Interstate Commerce Commission has issued Amendment No. 1 to Service Order No. 107 for the purpose of clarifying that order. Under the amendment, the Car Service Division of the Association of American Railroads is directed to restrict the number of American-owned freight cars, including refrigerator cars, moving into Mexico in any semi-monthly period so that it will not exceed the number moving from

Mexico into the United States in the preceding semi-monthly period, except to the extent the ratio so established is changed by the director of the I. C. C. Bureau of Service. The amendment was effective January 28.

Service Order No. 165, dealing with the use of refrigerator cars for the shipment of canned goods, has been modified by Amendment No. 3, effective January 29. The provisions of Service Order No. 178, prohibiting the use of refrigerator cars for the shipment of lard and certain other products, have been extended by Amendment No. 1 to that order, effective January 28, to include within the prohibition dried or evaporated fruits, fig paste, fig powder or fig pulp, processed cheese in glass or metal containers, and paraffine wax.

By Service Order No. 179, effective February 1, the commission directed the Manufacturers (St. Louis, Mo.) forthwith to unload two cars loaded with material consigned to the Philadelphia Signal Corps of the United States Army, which cars had been standing on its tracks since December 24 and 27, 1943.

Materials and Prices

The following is a digest of orders and notices of interest to railways, issued by the War Production Board and the Office of Price Administration since January 22:

Alloy Tool Steels—The WPB has moved along a broad front to relax restrictions on the manufacture of alloy tool steels and heat-resisting steels and the use of electric furnace facilities, WPB officers announced on January 21. By revoking Direction 1 to Supplementary Order M-21-h and Supplementary Order M-21-g, WPB removed all restrictions on the formulas by which vanadium, tungsten, molybdenum and nickel alloy steels and chromium-nickel alloy iron and alloy steel were produced. Hereafter, producers may use any alloy content they desire in making these melts.

Aluminum—A new policy permitting the use of aluminum for postwar experiments was announced by WPB on January 25. The Aluminum and Magnesium division of WPB will approve requests for small amounts for experiments, provided they can be carried out without diverting manpower, technical skills or facilities from activities connected with the war effort. All grants of materials in application of the new policy will be carried out within the provisions of Aluminum Conservation Order M-1-i, which is the order controlling the allocation and use of aluminum and aluminum products.

Electric Motors—Manufacturers of electric motor controllers have been relieved from the technicality of obtaining an AA-5 or higher priority before starting production on these units or parts therefor. The action was taken by WPB in an amendment to Limitation Order L-250 and is designed to permit manufacturers to make economical runs of components for the controllers. Technically, as the order stood before this amendment, manufacturers had to obtain an AA-5 or higher rating before manufacturing the components. The requirement of obtaining an AA-5, or higher, priority before acceptance or delivery of completed electric motor controllers remains in force.

Freon—Restrictions on the use of F-12 gas (freon), a hydrocarbon widely used in refrigeration and air-conditioning systems, will now be continued until August 31, 1944, the WPB announced on January 20.

Orders for CMP Materials—Interpretation No. 10 to CMP Regulation No. 1, issued January 14, is designed to clarify the determination of when a change in an authorized controlled material order constitutes placement of a new order and when it does not. Generally, any change in a customer's order constitutes a cancellation of the

earlier order and placement of a new order on the date of the change, if the change necessitates alteration of the producer's production schedule to a point which would interfere with production.

Where changes constitute placement of new orders, the acceptance or rejection of the new order and its place in the producer's schedule shall be governed by conditions existing at the time the changes are received by the producer. These rules supersede Interpretation No. 12 of CMPR No. 1 and CMPL letter 414, which were revoked.

PR No. 11 and PR No. 11A Revoked—Inasmuch as the Production Requirements Plan, which distributed materials to war and essential civilian production on a plant rather than a program basis, was superseded on July 1, 1943, by the Controlled Materials Plan which makes materials available on a program basis, PR No. 11 and 11A, which implemented PRP have become invalid, the WPB announced on January 14. These two regulations have now been revoked, finally liquidating PRP, except for possible continuing liability under it. The revocation orders do not terminate such liability.

Production and Delivery schedules—In event of conflict between production and delivery schedules under the CMP and delivery schedules under General Scheduling Order M-293, the delivery sequence called for under the GSO shall control, the WPB announced on January 24, in Direction No. 45 to CMP Regulation No. 1. The CMP schedules production and delivery on the basis of materials made available for production of finished products, while the GSO provides delivery schedules in the case of critical products that need special treatment as a result of production difficulties caused by shortages of facilities or labor or other factors.

Steel, Copper and Aluminum—Rules governing sales of steel, copper and aluminum, in CMP forms and shapes, by warehouses and distributors were modified on January 15, to ease applicable restrictions on such transactions. Restrictions on steel deliveries of 40,000 lb. or more and restrictions on deliveries of steel rails involving 56,000 lb. or more by warehouses to any one customer, at any one time and at any one destination have been eliminated from CMPR No. 4. Steel distributors, however, are still permitted to withhold deliveries of any order which would deplete their stocks and to refer the order to WPB for a decision as to whether it must be filled. The provision permitting steel distributors to fill orders in amounts of \$10 or less, without endorsement, has been modified by increasing the limit to \$25.

Revised provisions for warehouse sales of cop-

per-wire mill products permit purchasers to place orders for not more than 3,000 lb. for delivery from stock of any one item, to one destination, during any one calendar month; similarly, in the case of brass mill products, the aggregate delivery cannot exceed 2,000 lb. However, this limitation does not apply to resale of products which have been obtained by warehouses through authorization from the Copper Recovery Inventory branch or from a WPB regional office. Neither does the limitation apply to brass condenser tubes.

The action eliminates a restriction which has prevented persons dealing with warehouses from placing orders for more than 500 lb. of any item of brass mill products for delivery to any one destination in any one day. The change permits warehouses to sell idle or excess stocks of copper-wire mill or brass mill products to fill authorized CMP orders without quantity limitation.

Warehouses are permitted to reject orders for immediate delivery of copper-wire mill or brass mill products which are not in stock, or known to be in transit. In addition, they may reject orders calling for future delivery. However, if they elect to accept such orders, they must not set aside or hold materials to fill them. Under certain circumstances warehouses are permitted to place orders for shipment direct to their customers or for shipment to the customers via the warehouse.

Provisions pertaining to aluminum have been modified. Distributors must reject authorized CMP orders for delivery to any one person at any one destination at any one time, when such orders exceed 2,000 lb. (formerly 500 lb.) of aluminum sheets of any alloy, gage and size; or 900 lb. (formerly 300 lb.) of aluminum wire rods or bars of any alloy, size and shape; or 600 lb. (formerly 200 lb.) of aluminum tubing, extrusions or structural shapes of any alloy, size and shape. However, distributors are authorized to deliver up to 5,000 lb. (formerly 2,000 lb.) of aluminum sheets; 3,000 lb. (formerly 1,000 lb.) of aluminum wire, rods or bars; or 2,000 lb. (formerly 500 lb.) of aluminum tubing, extrusions or structural shapes, if they first shall have asked a mill to fill such orders and the mill shall have advised them to fill the orders from stock.

General provisions of the regulation are amended to require that any authorized CMP order for steel, copper-wire mill or brass mill products, or aluminum shall be considered to require immediate delivery unless the purchase order itself specifically states otherwise.

Tires and Tubes—Industrial-type tires of specific sizes—tires manufactured primarily for use on industrial equipment rather than on vehicles—have been made ration free when bought for non-vehicular use by Amendment No. 66 to Ration Order 1A (Tires and Tubes) effective January 21. When industrial-type tires are bought for vehicular use, such as for small automobiles and farm implements, however, they remain under rationing. Single tube pneumatic tires and straight side pneumatic tires of the following sizes may now be bought ration-free for use on industrial equipment: (1) All tire sizes up to and including 4.50-12, (2) 6.00-9, (3) 7.50-10, (4) 7.50-15 (4-ply smooth tread only) and, (5) 9.00-10. Tubes designed for use within these tires are also ration free.

Tractors—The WPB issued a simplified version of order L-53 for controlling the sale of new track-laying tractors. Provisions of the order, which are the same as when first issued in February, 1942, restrict the sale or delivery of new track-laying tractors to those having specific WPB authorization. Application for authorization must be made on WPB form 1319.

Wood-Boring Bits—A standardization and simplification schedule for wood-boring bits, which will permit the manufacture of 422 kinds and sizes of bits instead of 1285, a reduction of approximately 67 per cent, was announced by the WPB on January 22. Schedule VIII of the hand tool simplification order L-157 limits manufacture of wood-boring bits to the 18 types and sizes, styles, grades, etc., of each type set forth in Appendix A, attached to the Schedule. Eleven types designed for special purposes and not used in large quantities are exempted from the restrictions. Manufacturers and dealers are prohibited from holding sets of bits in inventory but sets may be made up to fill specific orders. Permitted types listed in Appendix A are: auger bits; car bits; machine auger bits, except ship auger; ship augers (square shank); ship augers

(machine or round shank); ring augers; machine plug bits; hand plug bits with threaded guide; hand plug bits with screw point; expansive bits; Forstner bits (hand and machine); double cut gimlet bits; drills and countersinks for boring for wood screws; wood drills; bell hangers or electricians' drills; dowel bits; machine bits; and tapping or sugar tree bits. Provisions of Schedule VIII are now effective but non-conforming bits may be shipped and delivered up to April 22, 1944.

Prices

Copper Castings—Amendment No. 3 to RMPR No. 125—Non-Ferrous Castings, effective February 1, provides a readjustment in the maximum prices for copper and copper base alloy castings that will restore part or all of the reductions made last February in ceilings for some types of castings.

Douglas Fir and Other West Coast Lumber—Amendment No. 5 to RMPR No. 26 (Douglas Fir and Other West Coast Lumber), effective February 1, provides tightening of producers' maximum prices for Douglas fir, white fir and hemlock. To clarify pricing for enforcement, the following steps have been taken: (1) Sellers of items of Douglas fir, white fir or hemlock lumber for which ceiling prices have not been specifically provided by OPA, must apply to OPA for a proposed price or, failing that, invoice the lumber at \$15 per M. b. m., the ceiling price for the lowest grade of lumber. (2) Additions permitted for scaffold planking are limited to material 9 in. and wider. (3) The additions of \$2 and \$3 per M. b. m. that may be made to maximum prices for listed types of surfacing operations performed on clear lumber are now made applicable to all types of surfacing operations on clear lumber. The purpose of this is to prevent the pyramiding of surfacing charges. (4) All rough lumber henceforth must be of sufficient width and thickness to permit dressing S4S to American Lumber Standards.

In other pricing changes for Douglas fir, white fir and hemlock, OPA announced specific prices for C Shipdecking, a new grade recently established by the West Coast Lumber and Inspection Bureau. Ceiling prices for this new grade is fixed at \$5 per M. b. m. less than the ceiling prices for B and Better grade. In another change, a maximum charge of 50 cents per M. b. m. is established for stenciling, when required by the buyer, to any extent beyond grade marking and simple identification.

An increase of \$8 per M. b. m. in producers' ceilings for three grades of Douglas fir, white fir and hemlock flat grain flooring in the $\frac{5}{8}$ -in. by 6-in. size is authorized. This restores the customary industry relationship between the price of this material and flat grain flooring $\frac{5}{8}$ -in. by 4-in. Only a small quantity of this size of flooring is produced, and the increased ceiling will have little or no effect on mill realization, OPA said.

OPA further announced a reduction in the ceiling prices for green flooring and siding, through establishment of a deduction of \$5 per M. b. m. if the material is not seasoned. This establishes the normal relationship between green and seasoned clears worked to those patterns. Previously green flooring and siding could be sold at higher prices when sold as "finish".

Specific prices are established for short lengths included in a shipment in excess of the percentage permitted in a random length loading of flooring, drop siding and rustic siding, ceiling and finish and clears. These prices range from \$5 to \$25 per M. b. m. less than the established ceiling prices for random lengths, and are the same as the prices previously authorized for individual sellers on petition.

Fence Posts—Under Amendment No. 2 to RMPR No. 324 (Fence Posts) effective February 5, railroads and other industrial consumers will pay materially less for fence posts. The concentrators' mark-up on sales of fence posts to industrial users is reduced to 15 per cent from the previous mark-ups of 25 to 33 1/3 per cent for various species.

Specific concentrators' ceiling prices, including the wholesaler's commission, are established for cedar posts in Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. These ceilings represent an increase of approximately 10 per cent over previous ceilings, which were the highest prices individual sellers charged during March, 1942.

To reflect more accurately increased weights resulting from shipment of fence posts in an unseasoned condition, the estimated weights for Tennessee red cedar posts which are used in computing maximum freight allowances, have been increased 15 per cent.

The highest prices individual sellers charged in March, 1942, are reestablished as ceilings for posts produced in Washington and Oregon, west of the crest of the Cascade mountains. A shift to the March, 1942, prices from dollars-and-cents ceilings was necessary, OPA said, because producers in the western part of these states were able to obtain an abnormally high price by the use of the Sandpoint, Idaho, basing point in figuring transportation additions on delivered sales.

Ferrous Forgings—Amendment No. 5 to MPR No. 351 (Ferrous Forgings), effective January 27, sets up provisions under which manufacturers of ferrous forgings may enter into adjustable pricing contracts. This authorization for adjustment in price will be given only where: (a) a request for a change in the applicable price is pending, (b) authorization is necessary to promote production, and (c) it will not interfere with the purposes of the Emergency Price Control Act of 1942, as amended. The adjustment provision is substantially the same as the standard provision that has been added to most price regulations. Manufacturers may agree with buyers to charge a price which can be increased up to the maximum price in effect at the time of delivery. Where the manufacturer has filed an application for adjustment under the appropriate section of the regulation, he may, in accordance with provisions of that section, deliver at a price which will be adjusted upward in accordance with the action taken by OPA on his application.

In all other cases, unless authorized by OPA, the manufacturer must not deliver at a price which is to be increased in accordance with action taken by OPA after delivery.

Iron and Steel Products—Amendment No. 20 to RPS No. 49 (Resale of Iron and Steel Products), effective January 13, provides a simplified procedure for pricing steel products sold out of warehouses in carload quantities. Establishment of the new pricing procedure coincides with the WPB announcement that, beginning January 13, warehouse sellers no longer are required to obtain certification of shipments of any amount of steel products they wish to ship from warehouses. Heretofore, they were required to obtain certificates for amounts of 40,000 lb. or more.

The new procedure permits warehouses to calculate their ceilings on carload shipments according to a method provided by OPA. Previously, sellers were required to obtain WPB certification on carload shipments, and then apply to OPA for the ceiling price that could be charged on the shipment. The level of prices for the trade remains substantially unchanged.

Southern Pine—The second Revision of MPR No. 19 (Southern Pine Lumber) effective February 4, provides a number of changes in mill ceiling prices which will result in a rise of less than one per cent in the average price of all Southern pine lumber, OPA said. The principal changes in the ceiling prices per M. b. m. are as follows: (1) No. 2 Shortleaf dimension lumber increased \$1; (2) re-sawing charge for strips and boards increased \$1; (3) 1-in. by 3-in. and 1-in. by 4-in. flat grain C and B No. 2 and better flooring increased from 50 cents to \$3; (4) Shortleaf pattern siding increased \$1 to \$6 and Longleaf pattern siding \$1 to \$3; (5) an addition of 50 cents (in certain cases more) is authorized for anti-stain treatment; (6) rough strips and boards and dimension lumber reduced \$1.50; (7) No. 3 common dimension Shortleaf reduced \$1; (8) finish lumber 1-in. by 3-in. and 1-in. by 4-in. reduced 50 cents to \$3; (9) ceiling prices of 1 1/4-in. and thicker Shortleaf finish lumber are reduced \$1.

OPA also announced that with regard to its rulings on distributors' direct-mill sales of Southern pine lumber, hereafter the same person may be permitted to make both commission-type and wholesale-type sales. In the commission-type sale, a commission of four per cent may be charged by the distributor, and in a wholesale-type sale a service charge of six per cent may be made. In the commission-type sale, OPA pointed out, the distributor does not take title to the shipment of lumber. In the wholesale-type sale, the distributor does take title pending delivery.

SPEED ALONE IS NOT ENOUGH—

Tonnage, too,
IS VITAL!



SPEED has been the keystone of America's wartime transportation job . . . but speed alone is not enough.

Coupled with the need for speed is the problem of moving an enormous volume of traffic.

Only the railroads—backbone of the Nation's commerce, in war and peace—could handle such a job.

The ability of the railroads to keep abreast of such unusual conditions depends upon the locomotive—modern locomotives, like Lima-built power which permits the hauling of heavy loads at high speed.

LIMA LOCOMOTIVE WORKS



INCORPORATED, LIMA, OHIO

GENERAL NEWS

Northwest Wants Additional Cars

Seeks change in rule on car
supply for grain—Needs
cars for potatoes

The proper car supply for handling the grain and potato crops was the principal subject considered at the meeting of the Northwest Shippers Advisory Board, presided over by General Chairman J. G. Mann at the Nicollet Hotel in Minneapolis on January 27. The Board adopted a strong resolution asking the A. A. R. to eliminate the present car service rule which provides that railways, in delivering empty grain cars at stations where all local elevators are filled to capacity, must allocate the cars equally among the elevators, regardless of their size or capacity.

Elevators Blocked — It was claimed that this rule, in times of tight car supply, slows down the marketing of grain, since, for example, an elevator with 75,000 bu. capacity receives no more cars than a 25,000 bu. capacity elevator. The request that the rule be abrogated was presented by a special committee representing all classes of grain shippers and other organizations and it was brought out that even now, several months after the close of the grain harvest, there are still blocked elevators in the Northwest.

The fact that the railways are very much alive to the seriousness of the situation was brought out by R. E. Clark, manager of the Closed Car section of the Car Service Division, A. A. R., and by Fred Keiser of the O. D. T. Mr. Clark pointed out that an order has been issued, requiring the Eastern and Southeastern lines to make prompt return to the Northwest territory of empties suitable for grain loading. Under this order, these cars must either be loaded promptly in the direction of home or, if such loading is not available, they must be sent home empty. In response to questioning from G. H. Shafer, chairman of the National Association of Advisory Boards, Mr. Clark assured the shippers that there is no basis for the persistent rumor that the railways are not buying as much new freight equipment as has been allotted to them by the W. P. B. As a matter of fact, according to Mr. Clark, the railways now have on order 3,500 cars more than the allotment.

Shortage of Potato Cars—The potato shippers of the territory were particularly vociferous in their demands for refrigerator cars and stated that not only is the crop in danger of spoiling but that, unless cars are supplied to ship seed potatoes to the growing sections of the South and Southwest, Southern growers cannot plant their 1944 potato crop. C. W. Taylor, manager of re-

frigerator cars, Car Service Division, A. A. R., promised that all possible refrigerator cars will be earmarked for the Northwest to handle this potato crop. He pointed out, however, that last November a large number of refrigerator cars had to be hauled empty out of the territory after having been sent there for potato loading, because the growers decided to hold the crop for better marketing conditions.

In view of the tightness of the car supply, the Car Efficiency and Car Unloading committees in the territory have increased their efforts and have done good work in promoting more efficient transportation in a critical area. That this work will have to be continued vigorously is indicated by the fact that the estimated loadings of grain, flour, meal and other mill products are given as 110,000 cars for the first quarter of 1944. While the estimated loadings for this period will only represent an increase of 1.4 per cent, as compared to the corresponding period last year, such commodities as potatoes show an increase of 27.8 per cent, while iron and steel shipments will increase 25.1 per cent and livestock 15 per cent.

Railways in War Zones—The annual joint luncheon of the Board with the Minneapolis Traffic Club was addressed by Charles Layng, transportation editor, *Railway Age*, who told the shippers and railway men of the vital part played by railway transportation abroad and described how the lack of adequate railway transportation played a major role in the failure of Germany's invasion of Russia. He also pointed out that the Japanese made great progress along the railway lines of China until the Chinese began tearing up their railways and removing rails, ties and bridge steel many miles to the rear. He reviewed the activities of our bombers, pointing out their concentration on railway transportation objectives, and stated that if American flyers can give their lives daily to hamper Axis transportation, it is certainly not too much to ask that American shippers and railway men give time and effort to improving American transportation.

Western Association Studies Labor Needs

The Western Association of Railway Executives has appointed a three-man committee to study and solve the manpower shortage on Western railroads. The members of the committee are J. D. Farrington, chief operating officer of the Chicago, Rock Island & Pacific; R. E. Williams, chief operating officer of the Chicago & North Western; and Wilson McCarthy, trustee of the Denver & Rio Grande Western. The appointment of the committee reflects the seriousness of the labor shortage, estimates of which are as high as 100,000 men, and anticipated zero weather which will complicate operation and call for additional forces.

Westerners Oppose Land Grant Rates

Regulators also rap efforts
to enforce uniform
freight rates

The Mountain-Pacific States Conference of Public Service Commissions went on record at its regular meeting at Phoenix, Ariz., on January 14, in favor of the repeal of land grant rates and as opposed to uniform freight rates. The Conference includes the public service commissions of 11 states, namely: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming. New Mexico, however, was not represented at the meeting.

The resolution adopted, urging the repeal of land grant rates, stated:

"We recognize the fact that the ownership of freight has no relation to the cost incurred by the carriers in performing the transportation service, and we believe that shippers, both government and civilian, should share alike in defraying that cost, paying similar rates for similar service.

Unfair to Civilian Shippers—"We believe that the transportation of war freight is a distinct part of the cost of war and should be financed in the same manner as other war costs, but that to require civilian shippers to pay full rates while the government, representing the whole public and functioning as a shipper, commands reduced rates, results in shifting to the civilian shippers an undue portion of the whole cost of transportation.

"We believe that whatever railroad earnings might result from the payment by the government of full and equal rates on the enormous volume of wartime freight should inure to the benefit of all shippers, both government and civilian, and that whatever reductions in freight rates might be warranted thereby, should be reflected in the entire rate structure for the movement of freight over both land grant and non-land grant lines.

"We deplore the uncertainty in the language of the Transportation Act of 1940 pertaining to the matter of land grant rates, and recognize the seriously debatable questions which have arisen with the inauguration of lend-lease, Maritime Commission and other shipments in the identification of government movements of 'military and naval freight intended for military or naval use.'

Uncertainty Is Harmful—"We believe that it is in the public interest for the carriers and the government to know the exact rate to be borne by all shippers, and that it is bad public policy to permit

the accumulation in the accounts of the railroads of vast contingent claims resulting from this uncertainty, which may involve years of litigation and might require the railroads to refund to the government vast amounts in the postwar period at a time when such funds will be needed by the carriers to rehabilitate their properties, to provide employment, and to aid in postwar reconstruction.

"We believe that this uncertainty should be eliminated now, while the transportation is being performed; that debatable claims should be settled or waived while the public interest is protected against excessive earnings by the carriers through the operation of the excess profits tax and when the public may benefit from such adjustments and reductions as may be warranted by such repeal."

The resolution opposing bills pending before Congress providing for uniform classification and uniform scales of railroad freight rates said, in part:

"We believe that any nationally uniform structure of freight rates would not only fail to bring about equality in economic and competitive opportunity, but would destroy the relative equality in that respect now existing, which has been built up during a century of development and which has been an important factor in the growth and development of the various sections of this great nation.

Sees Economic Dislocation—"We believe that any arbitrary fixation of nationally uniform freight rates, resulting from either a Congressional mandate or commission order, would cause such violent economic dislocations as to balk solution in either the current or postwar period and would retard and greatly complicate the reconstruction of business, agriculture and livestock in the period following victory. . .

"We further express the hope that as a means of promoting our national solidarity in this time of national peril, differences between groups and regions may be settled satisfactorily by the use of existing machinery for that purpose with a minimum of sectional strife and contention."

Cost Formula for Suburban and Commutation Services

The Interstate Commerce Commission's Bureau of Transport Economics and Statistics has issued a formula "providing for a comparison of railway revenues with expenses for suburban and commutation services." The formula, designated as Rail-Commutation, 10-43, is set out in Statement No. 441 of the Bureau.

"This suburban and commutation cost formula," says the explanatory note, "was developed by the Cost Section of the Bureau of Transport Economics and Statistics for the purpose of providing a comparison of railway revenues with railway expenses for suburban and commutation services. The purpose of distributing the formula is to make available to interested parties the results of research and experience obtained up to the present time. It is believed that its distribution will assist in an understanding of not only the cost finding procedure that may be used but also the economic issues involved in determining the costs for commutation traffic."

The note adds that the formula "is sub-

ject to such change as may be found desirable as a result of future study and research." Also, there is the usual disclaimer that the formula "has not been considered or adopted by the Interstate Commerce Commission."

The formula provides for the determination separately of out-of-pocket expenses of suburban and commutation services. Also, for the determination of fully-distributed costs. Most of the data called for would have to be developed by special studies.

Steel Founders' Society Elects Officers

The Steel Founders' Society of America has elected the following officers and directors for 1944-1945:

President—Oliver E. Mount (American Steel Foundries); **Vice-President**—F. Kermit Donaldson (Machined Steel Casting Co.); **Executive Committee**—(Chairman), Oliver E. Mount; A. M. Andorn (Penn Steel Casting Co.); T. F. Dorsey (Fort Pitt Steel Casting Co.); **Members of Board of Directors**—A. M. Andorn; D. P. Murphy (Symington-Gould Corporation); J. S. Wardle (Mobile Pulley & Machine Works); T. F. Dorsey (Fort Pitt Steel Casting Co.); F. K. Donaldson; E. D. Flintermann (Michigan Steel Casting Co.); C. A. Binder (St. Louis Steel Casting Co.); W. E. Butts (General Metals Corp.); **Executive Vice-President**—Colonel Merrill G. Baker (Steel Founders' Society of America); **Secretary-Treasurer**—Raymond L. Collier (Steel Founders' Society of America).

Equipment Depreciation Rates

Equipment depreciation rates for the Chicago & Eastern Illinois have been prescribed by the Interstate Commerce Commission in one of four recently-issued suborders in the depreciation rates proceeding. The rates are: Steam locomotives, 3.03 per cent; other locomotives, 4.85 per cent; freight-train cars, 3.66 per cent; passenger-train cars, 4.74 per cent; floating equipment, 4.78 per cent; work equipment, 4.5 per cent; miscellaneous equipment, 41.32 per cent.

Other orders made public at the same time prescribed rates for the Donora Southern, Escanaba & Lake Superior, and Wyandotte Terminal, the composite percentages of such prescribed rates being, respectively, 3.87 per cent, 3.53 per cent, and 4.13 per cent.

A. A. R. Board Meets; Member Road Meeting This Week

"There was more talk about manpower than anything else" was the way one of those attending described January 28's meeting of the Association of American Railroads board of directors in Washington, D. C. It was stated also that there was some talk of the equipment situation, although in that connection it was denied that Office of Defense Transportation representatives on hand had said anything which might be construed as a complaint that railroads had not been ordering enough rolling stock.

Nevertheless the board meeting was followed by a call for the special meeting of A. A. R. member roads, held in Chicago

on February 3, on the matter of what equipment the railroads may need. It was understood that Director Joseph B. Eastman and other O. D. T. officials would attend.

The manpower shortage, it was pointed out, continues to result in a lack of personnel to keep the available equipment moving. It is also understood that some kinks remain in arrangements for the amortization of new equipment over a five-year period. Among them is the status of equipment purchased between October 5, 1943, when the Secretaries of War and Navy relinquished the power to certify facilities as eligible for the amortization, and December 17, 1943, when the certifying power was transferred by Presidential order to the chairman of the War Production Board.

Other matters discussed at the meeting included the wage settlements and War Department operation of the carriers. Among the executives on hand for the meeting were the seven colonels, still in uniform, who served as regional directors during the brief period of government control. The O. D. T. was represented by Deputy Director C. D. Young, Director H. F. McCarthy of the Division of Traffic Movement, and Director V. V. Boatner of the Division of Railway Transport.

Would Extend Pension Board's Service Records Project

Chairman Wheeler of the Senate committee on interstate commerce has introduced "by request" Senate Joint Resolution 109 to extend until June 30, 1945, the period during which the Railroad Retirement Board may pay railroads for the work of bringing up to date the service records of prospective applicants for annuities under the Railroad Retirement Act.

Payments to the railroads would remain the same as heretofore, i.e., not in excess of 50 cents for the record of one man for one year.

A like resolution (H. J. Res. 227) has been introduced in the House by Chairman Lea of the committee on interstate and foreign commerce.

Freightways Pooling Plan Rejected by I. C. C.

The Interstate Commerce Commission, Division 3, has denied the application of the so-called Freightways group of western motor carriers for approval of a proposed new agreement for pooling or division of traffic, service or earnings. The report is in No. MC-F-2015.

The adverse finding is based on the failure of the applicants to submit certain additional data requested by the examiner at the close of the hearing. "Where, as here," the report concludes, "the parties have been lax in prosecuting the application and have failed to sustain their burden of proof by submitting data necessary to permit us properly to consider the issues and to make the required statutory findings, we have no alternative but to deny the application."

Anti-Trust Decree—The application was filed following enactment of the Transportation Act of 1940 which for the first time included common carriers by motor vehicle in the anti-pooling provisions of section 5(1). Meanwhile the existing

FRANKLIN RAILWAY SUPPLY COMPANY, INC.

Announces

Recognizing the trend in locomotive design toward higher boiler pressures, and noting the many new factors in current steam locomotive operation, Franklin Railway Supply Company, Inc. has developed an entirely new Booster to meet today's more exacting demands. Based on the experience gained from the operation of thousands of Boosters in service all over the country, the new Type "E" Booster has been expressly designed to conform to the new conditions under which it is to serve. » » » A few of the many improvements incorporated in the new Type "E" Booster are listed below.



FRANKLIN RAILWAY SUPPLY COMPANY, INC., New York, Chicago
In Canada: Franklin Railway Supply Company, Ltd., Montreal

1

Short Cut-Off takes full advantage of the expansive properties of the steam and effects marked economies in steam consumption.

2

A Special Starting Feature enables the Booster to develop maximum starting effort.

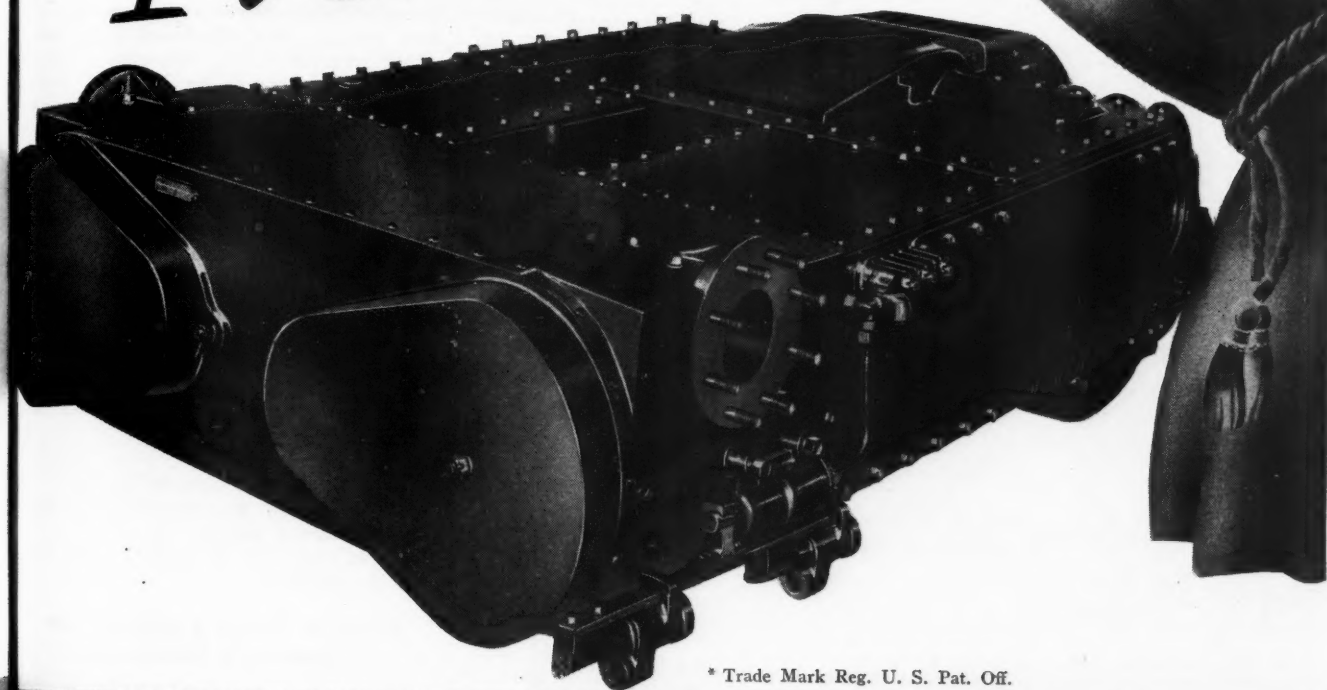
3

Cast Steel Cylinders, with integral inlet and exhaust manifolds. The large steam and exhaust passages give maximum inlet pressures and minimum back pressures.

4

Dynamic Balancing in the new Type "E" Booster contributes to smooth operation and higher operating speeds.

THE *New* TYPE "E" BOOSTER



* Trade Mark Reg. U. S. Pat. Off.

5

The Roller Bearing Crank Shaft, securely housed in the engine bed, makes for smooth running, freedom from lost motion, and long life with minimum maintenance.

6

New Air Control assures efficient Booster operation, and engagement at higher speed.

7

A New Design of Ball Joint with self adjusting packing and large passage areas insures the free flow of steam to and from the Booster.

8

For Each Booster Application the proper gear ratio is selected for a given boiler pressure, wheel diameter and adhesive weight to obtain maximum Booster power.

SELECTED INCOME AND BALANCE-SHEET ITEMS OF CLASS I STEAM RAILWAYS

Compiled from 132 reports (Form IBS) representing 136 steam railways by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission
(Switching and Terminal Companies Not Included)

Income Items	All Class I Railways			
	For the month of November		For the eleven months of	
	1943	1942	1943	1942
1. Net railway operating income	\$96,374,723	\$149,008,987	\$1,284,784,725	\$1,310,089,775
2. Other income	20,051,157	17,698,760	161,304,997	143,233,651
3. Total income	116,425,880	166,707,747	1,446,089,722	1,453,323,426
4. Miscellaneous deductions from income..	2,872,990	5,236,067	28,170,200	33,950,515
5. Income available for fixed charges..	113,552,890	161,471,680	1,417,919,522	1,419,372,911
6. Fixed charges:				
6-01. Rent for leased roads and equip-				
ment	12,754,856	10,708,579	156,323,692	163,790,629
6-02. Interest deductions ¹	34,788,048	36,927,032	395,240,576	406,405,663
6-03. Other deductions	125,490	118,538	1,361,774	1,301,204
6-04. Total fixed charges	47,668,394	47,754,149	552,926,042	571,497,496
7. Income after fixed charges	65,884,496	113,717,531	864,993,480	847,875,415
8. Contingent charges	2,536,508	2,241,608	26,115,988	24,949,408
9. Net income	63,347,988	111,475,923	838,877,492	822,926,007
10. Depreciation (Way and structures and				
Equipment)	26,444,566	20,957,715	289,876,148	227,325,150
11. Amortization of defense projects	14,340,507	11,020,840	128,685,840	76,731,762
12. Federal income taxes	105,013,461	78,811,969	1,285,044,674	712,784,279
13. Dividend appropriations:				
13-01. On common stock	56,865,623	57,471,758	154,765,384	145,101,360
13-02. On preferred stock	6,212,029	3,493,575	31,400,582	29,267,319
Ratio of income to fixed charges (Item				
5 + 6-04)	2.38	3.38	2.56	2.48

Selected Asset and Liability Items	All Class I Railways	
	1943	1942
20. Investments in stocks, bonds, etc., other than those of affiliated companies (Total, Account 707)	\$589,042,509	\$527,192,370
21. Cash	1,297,326,353	1,120,469,559
22. Temporary cash investments	1,670,410,255	688,535,906
23. Special deposits	178,871,163	151,702,571
24. Loans and bills receivable	227,656	989,142
25. Traffic and car-service balances—Dr.	38,164,312	39,736,605
26. Net balance receivable from agents and conductors	170,712,805	158,171,562
27. Miscellaneous accounts receivable	630,812,502	412,679,174
28. Materials and supplies	526,252,322	508,775,912
29. Interest and dividends receivable	33,457,898	30,691,004
30. Rents receivable	1,824,274	1,623,507
31. Other current assets	58,821,571	15,615,833
32. Total current assets (items 21 to 31)	4,606,881,111	3,128,990,775
40. Funded debt maturing within 6 months ²	78,051,655	153,007,807
41. Loans and bills payable ³	14,461,511	16,249,652
42. Traffic and car-service balances—Cr.	154,454,338	130,740,312
43. Audited accounts and wages payable	457,808,663	387,518,659
44. Miscellaneous accounts payable	116,538,757	71,893,897
45. Interest matured unpaid	48,254,921	44,061,234
46. Dividends matured unpaid	7,644,009	9,618,596
47. Unmatured interest accrued	74,407,502	84,587,635
48. Unmatured dividends declared	65,688,257	70,223,496
49. Unmatured rents accrued	31,348,902	31,126,545
50. Accrued tax liability	1,773,616,444	942,874,307
51. Other current liabilities	78,142,941	62,901,932
52. Total current liabilities (items 41 to 51)	2,822,366,245	1,851,796,265
53. Analysis of accrued tax liability:		
53-01. U. S. Government taxes	1,631,314,951	816,495,485
53-02. Other than U. S. Government taxes	142,301,493	126,378,822

¹ Represents accruals, including the amount in default.

² Includes payments of principal of long-term debt (other than long-term debt in default) which will become due within six months after close of month of report.

³ Includes obligations which will mature not more than 1 year after date of issue.
Subject to revision.

Freightways set-up became the subject of successful attack by the Department of Justice's Anti-Trust Division in proceedings resulting in a consent decree which, however, has not yet become effective.

That decree, as the I. C. C. puts it, "enjoins applicants from continuing in effect all of the principal practices under which the Freightways organization functions and orders dissolution of Freightways." Nevertheless, the commission held that the application presented a contract, agreement, or combination between common carriers which it might approve under section 5(1), thus rejecting the Anti-Trust Division's contention that the court decree "is binding upon us under the circumstances of this case."

At the same time it did not spend much time discussing the proposed uniform agreement, saying that consideration of certain

objectionable features was unnecessary in view of the adverse finding from the laxity-in-prosecution standpoint.

Allow Reorganization Roads to Deduct Interest for Taxes

Roads undergoing reorganization under section 77 of the Bankruptcy Act that use the accrual method of accounting are entitled under a recent Treasury Department ruling to deduct from gross income, for income tax purposes, the full amount of the interest accrued on indebtedness for the respective years of accrual, regardless of any reasonable expectancy that such interest actually will be paid.

This ruling (I. T. 3635) was made public January 25, following an inquiry for an interpretation of the statutory requirements in such situations. It was held that

interest on the debtor company's obligations continues to accrue as a deduction until the date of the actual transfer of the corporate assets to the reorganized corporation, since the obligation to pay interest runs until the debt is legally extinguished. Under such circumstances, the ruling provided, doubt as to the collectability of such interest is not a contingency of the sort that would postpone the accrual of the liability until the contingency is resolved.

Change in House Committee on Interstate Commerce

Hugh D. Scott, Jr., Republican of Pennsylvania, has been elected to membership on the House committee on interstate and foreign commerce where he succeeds Harve Tibbott, Republican of Pennsylvania, who resigned to accept a place on the appropriations committee.

C. & E. I. Establishes Bureau to Handle War Traffic

The Chicago & Eastern Illinois, in order to relieve telephone congestion and aid war-time travelers, has established a new telephone reservation and information bureau on the third floor of the Dearborn street station in Chicago. The new bureau, which operates on a 7 a. m. to midnight schedule, was created following a survey of existing telephone facilities which showed that they were being called upon to handle 7,000 incoming calls a week.

Petty Named to A.S.A.

D. M. Petty, president of the Cornwall Railroad, has been appointed a member of the Sectional Committee on Railroad Motors and Other Rotating Machinery on Rail Cars and Locomotives, of the American Standards Association.

The work of the committee includes definitions, classifications, rating, and methods of test for the rotating machinery, which forms a part of the power equipment on electrically-propelled railway cars and locomotives.

Politics Poses Problems for Canada's Railways

There will be a general national election in Canada some time this year and there will be a confused situation with at least four parties appealing to the electorate. As the C. C. F. (Co-Operative Commonwealth Federation) nearly won power in a provincial election in Ontario last fall, the stock of this party—which is in reality the Socialist party—has risen considerably. One result is that the present federal Liberal government, led by Prime Minister Mackenzie King, presented to Parliament last week its legislative program for the session, just opened. It contains a considerable extension of the existing state projects for reconstruction and social security, a move to head off the Socialists.

While there have been no expressions of view for a long time from either Liberals or Conservatives on the question of either leaving the Canadian Pacific under private ownership or absorbing it in the state-owned system, the Canadian National, the C. C. F. or Socialist leader, M. J. Coldwell, in an interview in a local paper last week.

FUEL

a strategic material

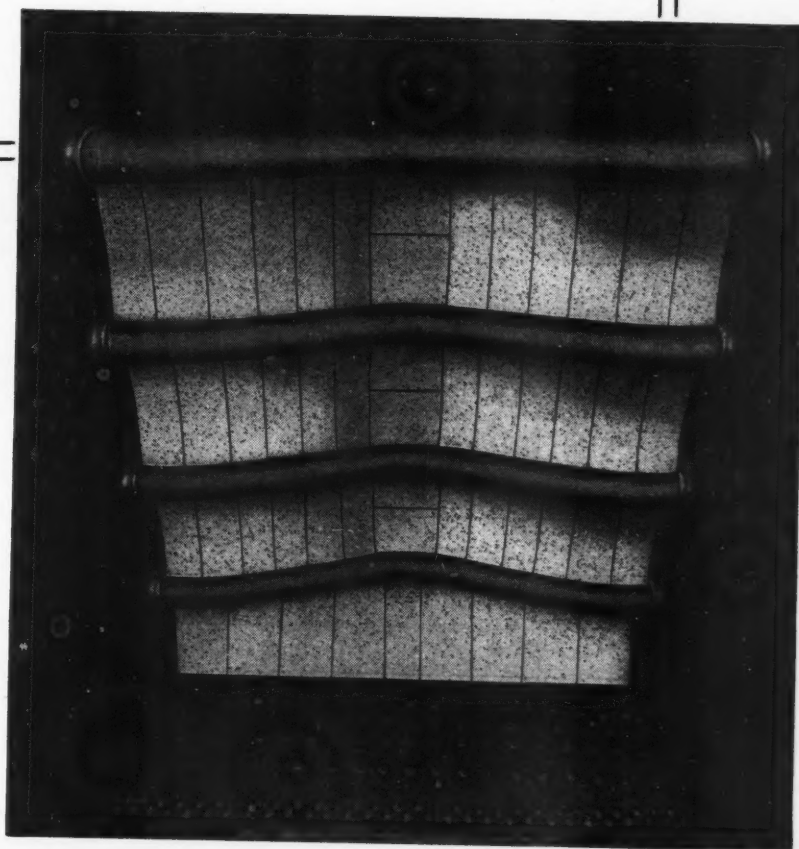
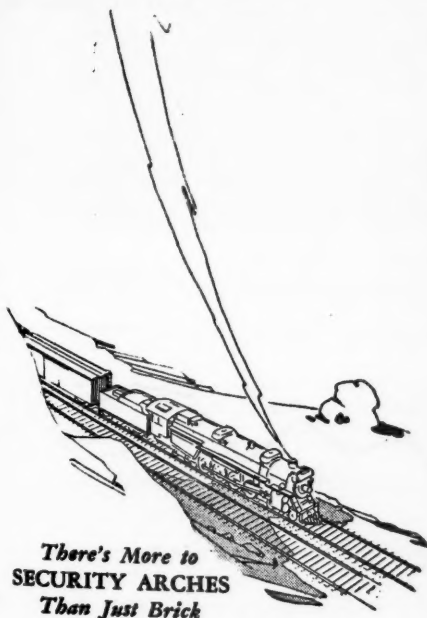
CONSERVED

with Security Sectional Arches

Today, more than ever, fuel is one of our strategic materials. Making every pound of fuel produce the maximum amount of steam not only conserves this strategic material but also the cars required to transport it.

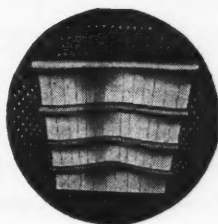
For over 33 years, Security Sectional Arches have been saving fuel on all types of steam locomotives.

But experience has proved that only with a *complete* Arch can maximum fuel economy be realized.



**HARBISON-WALKER
REFRACTORIES CO.**

Refractory Specialists



**AMERICAN ARCH CO.
INCORPORATED**

60 EAST 42nd STREET, NEW YORK, N. Y.

**Locomotive Combustion
Specialists**

February 5, 1944

had this to say in answer to prepared questions:

Favors Socializing C.P.R.—Question—Is it correct the C. C. F. favors socialization of the Canadian Pacific Railway through the repatriation of about \$500,000,000 British held securities, but that the C. P. R. system would be operated separately from the present Canadian National Railway system?

Answer—The C. C. F. believes that the C. P. R. stocks and bonds now held in Britain, in excess of \$500,000,000, should be repatriated and held by the government to give control of the C. P. R. At its 1938 national convention, the C. C. F. expressed its opposition to railway amalgamation. I see no reason why two railways, serving largely different areas in Canada, should not be continued as separate systems, competing in giving service to the country, instead of making profits for C. P. R. directors and shareholders, whose employees, as a matter of fact, operate that railway efficiently today.

Q.—Would the C. C. F. socialize all subsidiary air lines now operating under private ownership apart from the government-owned Trans-Canada Air Lines?

A.—I would run all the air lines of the country as a socialized service and in this case as one system, except that it might be that short distance supplementary air traffic might be a field for private operation. As it is today, the government supplies all the facilities, air fields, meteorological services, etc., for all air lines in Canada. Might I add my opinion that the Trans-Canada Air Lines have been a great success and that their record has been quite remarkable.

Chicago Commerce Association Opposes Political Rates

Charges that legislation before Congress will make a political "football" of freight rates, handcuff the Interstate Commerce Commission and may seriously affect Illinois industry, were contained in a message urging the defeat of pending bills that was sent to the Illinois Congressional delegation on January 27, by the Transporta-

tion committee of the Chicago Association of Commerce. The latter contended that the bills would remake the nation's freight rate structure by direct legislative action and destroy the long established and approved practice of making rates by the I. C. C. under broad general mandates from Congress and on facts presented at public hearings. It also challenged those who maintain that existing rates discriminate against the South and Southwest and prevent expansion of Southern industries.

The Commerce and Industry Association of New York has likewise protested the proposed legislation, characterizing it as an effort to induce Northern industries to change their location.

Bus Reporting Reduced

Local and intercity bus operators are no longer required to submit monthly reports covering mileage and maintenance of new, integral buses placed in service after July 31, 1942, the Office of Defense Transportation announced January 28.

Such buses are preserved as a national bus "pool," under agreements between the operators and the O. D. T., and they may be reassigned from their present service to any place in the country if a greater need should arise. Heretofore, under these agreements, monthly reports on bus mileage and maintenance have been required.

Club Meetings

The February 10 meeting of the Central Railway Club of Buffalo has been designated "Red Cross and U. S. Coast Guard Night." The program will begin at 8 p. m. in the Fillmore room, Hotel Statler.

The Anthracite Valley Car Foremen's Association will convene February 21 at 6:30 p. m., in the American Legion Home, Parsons, Pa., at which time will be discussed changes in 1944 A. A. R. interchange rule.

"Your Voice As Others Hear It" will be demonstrated by a Mirrorphone, at the 8 p. m., February 14, meeting of the Canadian Railway Club, Windsor Hotel, Montreal. George C. Long, historian, Bell Telephone Company, is to be guest speaker.

Colonel W. G. Knight, mechanical su-

perintendent, Bangor & Aroostook, will address the New England Railroad Club, February 8, at 7:45 p. m., on the subject "Military Railways in the Theatre of Army Operations." The Colonel has just returned from India where he served as a liaison officer with the American and British armies.

Get Stay in N. Y. C's Yonkers Abandonment

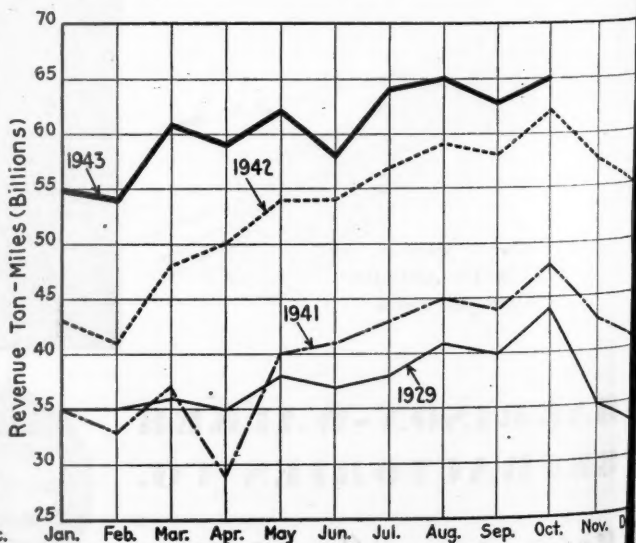
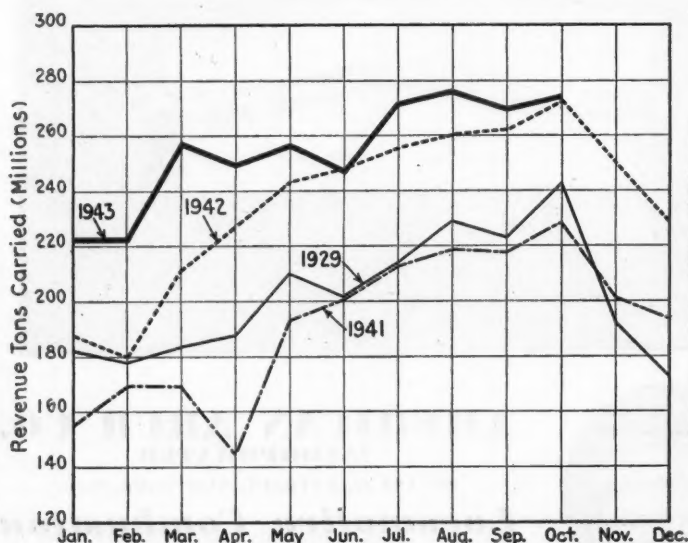
The Supreme Court of the United States on January 31 granted a motion to stay until March 1 its mandate in the case *City of Yonkers vs. U.S.*, the effect of which is to defer to that date action setting aside the Interstate Commerce Commission's order authorizing the New York Central to abandon a 3.1-mile branch serving a section of Yonkers, N. Y. The court's decision in the case was reported in *Railway Age* of January 8, and the commission's action reopening the proceeding for reconsideration was noted in the issue of January 22, page 262.

Justice Black did not approve granting this motion, and Justices Douglas and Murphy agreed with him. Justice Black said, "As this record stands, railroad service has been abandoned without any valid order authorizing such action. I therefore would permit the court's mandate to go down. But if the mandate is to be stayed, I think that, at the very least, since the stay is equivalent to an injunction, a bond should be required of the railroad in an amount sufficient to protect the people of Yonkers against such loss as the city or its citizens may sustain in case it is ultimately decided that the railroad had no legal right to abandon its service."

Freight Car Loading

Loadings of revenue freight for the week ended January 29 totaled 811,062 cars, the Association of American Railroads announced on February 3. This was an increase of 12,340 cars or 1.5 per cent above the preceding week, an increase of 76,392 cars or 10.4 per cent above the corresponding week last year, and a decrease of 4,500 cars or 0.6 per cent below the comparable 1942 week.

Loading of revenue freight for the week



Revenue Tons and Revenue Ton-Miles—1943 Compared with 1929, 1941 and 1942

Every
**Minute Counts
 on the
 Railroads...**

and it is imperative that locomotives be kept in service.

Well maintained superheater units will help to keep them in service and there is
 no better way to assure superheater dependability than to have them re-manufactured
 at our plant before they are beyond reclaiming.



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A-1632

ended January 22 totaled 798,722 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading

For the Week Ended Saturday, January 22			
District	1944	1943	1942
Eastern	157,912	140,735	174,202
Allegheny	172,004	155,965	178,106
Pocahontas	55,072	52,395	50,961
Southern	121,466	119,387	129,061
Northwestern	92,317	66,969	98,261
Central Western	128,085	102,730	124,408
Southwestern	71,916	65,113	63,082
Total Western Districts	292,268	234,812	285,751
Total All Roads	798,722	703,294	818,081
Commodities			
Grain and grain products	58,857	45,284	47,201
Live stock	16,164	11,483	12,341
Coal	182,165	164,046	162,770
Coke	15,410	15,136	14,212
Forest products	43,365	33,706	47,365
Ore	14,363	13,559	14,103
Merchandise l.c.l.	101,009	84,530	149,487
Miscellaneous	367,389	335,550	370,602
January 22	798,722	703,294	818,081
January 15	780,220	755,498	811,327
January 8	762,999	717,176	736,972
January 1	643,474	621,173	676,534
December 25	641,368	591,471	606,502

Cumulative Total,
4 Weeks 2,985,415 2,797,141 3,042,914

In Canada.—Carloadings for the week ended January 22 totaled 69,396, compared with 67,477 for the previous week, and 49,397 for the corresponding period last year, according to the compilation of the Dominion Bureau of Statistics.

Total for Canada:	Total Cars Loaded	Total Cars Rec'd from Connections
January 22, 1944	69,636	37,070
January 15, 1944	67,520	35,653
January 8, 1944	61,632	33,373
January 23, 1943	49,397	29,869
Cumulative Totals for Canada:		
January 22, 1944	198,788	106,096
January 23, 1943	166,933	95,213
January 24, 1942	184,995	90,808

Meetings and Conventions

The following list gives names of secretaries, dates of next or regular meetings and places of meetings:

ALLIED RAILWAY SUPPLY ASSOCIATION.—J. F. Gettrust, P. O. Box 5522, Chicago, Ill.
AMERICAN ASSOCIATION OF FREIGHT TRAFFIC OFFICERS.—W. R. Curtis, G. M. & O. R. R., 105 W. Adams St., Chicago 3, Ill.
AMERICAN ASSOCIATION OF GENERAL BAGGAGE AGENTS.—E. P. Soebbing, Railway Exchange Bldg., St. Louis, Mo.
AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.—B. D. Branch, C. R. R. of N. J., 143 Liberty St., New York 6, N. Y.
AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.—Miss Elinor Heffern, Room 822, 310 South Michigan Ave., Chicago 4, Ill.
AMERICAN ASSOCIATION OF RAILWAY ADVERTISING AGENTS.—E. A. Abbott, Poole Bros., Inc., 85 W. Harrison St., Chicago, Ill.
AMERICAN ASSOCIATION OF SUPERINTENDENTS OF DINING CARS.—F. R. Borger, C. I. & L. Ry., 836 S. Federal St., Chicago, Ill.
AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.—Miss Elinor Heffern, Room 822, 310 South Michigan Ave., Chicago 4, Ill.
AMERICAN RAILWAY CAR INSTITUTE.—W. C. Tabbert, 19 Rector St., New York, N. Y.
AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.—J. B. Lanctot, Canadian National Rys., St. Paul, Minn.
AMERICAN RAILWAY ENGINEERING ASSOCIATION.—Works in cooperation with the Association of American Railroads, Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, March 14-16, 1944, Palmer House, Chicago, Ill.
AMERICAN RAILWAY MAGAZINE EDITORS' ASSOCIATION.—Page N. Price, Norfolk & Western Magazine, Roanoke, Va.
AMERICAN SHORT LINE RAILROAD ASSOCIATION.—J. H. Hunt, Tower Bldg., Washington, D. C.
AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—C. E. Davies, 29 W. 39th St., New York, N. Y.
RAILROAD DIVISION.—E. L. Woodward, Rail-

way Mechanical Engineer, 105 W. Adams St., Chicago 3, Ill.
AMERICAN TRANSIT ASSOCIATION.—Guy C. Heckler, 292 Madison Ave., New York, N. Y.
AMERICAN WOOD PRESERVERS' ASSOCIATION.—H. L. Dawson, 1427 Eye St., N. W., Washington, D. C. Annual Meeting, April 26, 1944, Palmer House, Chicago, Ill.
ASSOCIATED TRAFFIC CLUBS OF AMERICA, INC.—A. S. Beery, Newsweek, Dayton, Ohio. Annual Convention, Feb. 24, 1944, Hotel Cleveland, Cleveland, O.
ASSOCIATION OF AMERICAN RAILROADS.—H. J. Forster, Transportation Bldg., Washington 6, D. C.
Operations and Maintenance Department.—Charles H. Buford, Vice-President, Transportation Bldg., Washington 6, D. C.
Operating-Transportation Division.—L. R. Knott, 59 E. Van Buren St., Chicago 5, Ill.
Operating Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.
Transportation Section.—L. R. Knott, 59 E. Van Buren St., Chicago 5, Ill.
Fire Protection and Insurance Section.—W. F. Steffens, New York Central, Room 3317, 230 Park Avenue, New York, N. Y.
Freight Station Section.—L. R. Knott, 59 E. Van Buren St., Chicago 5, Ill.
Medical and Surgical Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.
Protective Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.
Safety Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.
Telegraph and Telephone Section.—W. A. Fairbanks, 30 Vesey St., New York 7, N. Y.
Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, March 14-16, 1944, Palmer House, Chicago, Ill.
Construction and Maintenance Section.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill.
Electrical Section.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill.
Signal Section.—R. H. C. Balliet, 30 Vesey St., New York 7, N. Y.
Mechanical Division.—Arthur C. Browning, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, June, 1944, Chicago, Ill.
Electrical Section.—J. A. Andreucetti, 59 E. Van Buren St., Chicago 5, Ill.
Purchases and Stores Division.—W. J. Farrell (Executive Vice-Chairman), Transportation Bldg., Washington 6, D. C.
Freight Claim Division.—Lewis Pilcher, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, April 25-27, 1944, Netherland Plaza Hotel, Cincinnati, O.
Motor Transport Division.—George M. Campbell, Transportation Bldg., Washington 6, D. C.
Car Service Division.—E. W. Coughlin (Assistant to Chairman), Transportation Bldg., Washington 6, D. C.
Finance, Accounting, Taxation and Valuation Department.—E. H. Bunnell, Vice-President, Transportation Bldg., Washington 6, D. C.
Accounting Division.—E. R. Ford, Transportation Bldg., Washington 6, D. C.
Treasury Division.—E. R. Ford, Transportation Bldg., Washington 6, D. C.
Traffic Department.—A. F. Cleveland, Vice-President, Transportation Bldg., Washington 6, D. C.
ASSOCIATION OF RAILWAY CLAIM AGENTS.—F. L. Johnson, Alton R. R., 340 W. Harrison St., Chicago, Ill.
BRIDGE AND BUILDING SUPPLY MEN'S ASSOCIATION.—P. R. Austin, Johns-Manville Sales Corp., Merchandise Mart, Chicago, Ill.
CANADIAN RAILWAY CLUB.—C. R. Crook, 4415 Marcl Ave., N. D. G., Montreal, Que. Regular meetings, second Monday of each month, except June, July and August, Windsor Hotel, Montreal, Que.
CAR DEPARTMENT ASSOCIATION OF ST. LOUIS, MO.—J. J. Sheehan, 1101 Missouri Pacific Bldg., St. Louis, Mo. Regular meetings, third Tuesday of each month, except June, July and August, Hotel De Soto, St. Louis, Mo.
CAR DEPARTMENT OFFICERS' ASSOCIATION.—F. H. Stremmel, 6536 Oxford Ave., Chicago, Ill.
CAR FOREMEN'S ASSOCIATION OF CHICAGO.—Ralph J. Feddor, 2803 N. Campbell Ave., Chicago, Ill. Regular meetings, second Monday of each month, except June, July and August, La Salle Hotel, Chicago, Ill.
CENTRAL RAILWAY CLUB OF BUFFALO.—R. E. Mann, 1840-42 Hotel Statler, McKinley Square, Buffalo, N. Y. Regular meetings, second Thursday of each month, except June, July and August, Hotel Statler, Buffalo, N. Y.
EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.—H. J. Hawthorne, Union Railroad, East Pittsburgh, Pa.
EASTERN CAR FOREMAN'S ASSOCIATION.—W. P. Dizard, 30 Church St., New York 7, N. Y.

Regular meetings, second Friday of January, March, April, May, October and November, 29 W. 39th St., New York, N. Y.
MASTER BOILER MAKERS' ASSOCIATION.—A. F. Stiglmeier, 29 Parkwood St., Albany 3, N. Y. Annual Meeting, September, 1944, Hotel Sherman, Chicago, Ill.
NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—Ben Smart, 7413 New Post Office Bldg., Washington, D. C.
NATIONAL ASSOCIATION OF SHIPPERS' ADVISORY BOARDS.—C. J. Goodyear, 725 Reading Terminal, Philadelphia 5, Pa.
NATIONAL INDUSTRIAL TRAFFIC LEAGUE.—Edward F. Lacey, Suite 450, Munsey Bldg., Washington 4, D. C. Annual meeting, November, 1944, Hotel Pennsylvania, New York, N. Y.
NATIONAL RAILWAY APPLIANCE ASSOCIATION.—C. H. White, Room 1826, 208 S. La Salle St., Chicago, Ill.
NEW ENGLAND RAILROAD CLUB.—W. E. Cade, Jr., 683 Atlantic Ave., Boston, Mass. Regular meetings, second Tuesday of each month, except June, July, August and September, Hotel Vendome, Boston, Mass.
NEW YORK RAILROAD CLUB.—D. W. Pye, 30 Church St., New York 7, N. Y. Regular meetings, third Thursday of each month, except June, July, August, September and December, 29 W. 39th St., New York, N. Y.
NORTHWEST CARMEN'S ASSOCIATION.—E. N. Myers, Minnesota Transfer Ry., St. Paul, Minn. Regular meetings, first Monday of each month, except June, July and August, Midway Club, 1931 University Ave., St. Paul, Minn.
PACIFIC RAILWAY CLUB.—William S. Wollner, P. O. Box A, Sausalito, Cal. Regular meetings, second Thursday of each alternate month, at Palace Hotel, San Francisco, Cal., and Hotel Hayward, Los Angeles, Cal.
RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton, First National Bank Bldg., Chicago, Ill.
RAILWAY CLUB OF PITTSBURGH.—J. D. Conway, 308 Keenan Bldg., Pittsburgh, Pa. Regular meetings, fourth Thursday of each month, except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.
RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.—J. McC. Price, Allen-Bradley Company, 624 W. Adams St., Chicago 6, Ill.
RAILWAY FUEL AND TRAVELING ENGINEERS' ASSOCIATION.—T. Duff Smith, Room 811, Utilities Bldg., 327 S. La Salle St., Chicago, Ill.
RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.—J. D. Conway, 308 Keenan Bldg., Pittsburgh, Pa.
RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7, N. Y. Meets with Telegraph and Telephone Section of A. A. R.
RAILWAY TIE ASSOCIATION.—Roy M. Edmonds, 610 Shell Bldg., St. Louis 3, Mo. Annual meeting, May 16-17, 1944, Netherland Plaza Hotel, Cincinnati, O.
ROADMASTERS' AND MAINTENANCE OF WAY ASSOCIATION.—Miss Elinor Heffern, Room 822, 310 S. Michigan Ave., Chicago 4, Ill.
SIGNAL APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7, N. Y. Meets with A. A. R. Signal Section.
SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.—A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga.
SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.—D. W. Brantley, C. of Ga., Savannah, Ga.
TORONTO RAILWAY CLUB.—D. M. George, P. O. Box 8, Terminal "A," Toronto, Ont. Regular meetings, fourth Monday of each month, except June, July and August, Royal York Hotel, Toronto, Ont.
TRACK SUPPLY ASSOCIATION.—Lewis Thomas, Q. and C. Company, 59 E. Van Buren St., Chicago 5, Ill.
UNITED ASSOCIATIONS OF RAILROAD VETERANS.—Roy E. Collins, 112 Hatfield Place, Port Richmond, Staten Island, N. Y.
WESTERN RAILWAY CLUB.—E. E. Thulin, Suite 339, Hotel Sherman, Chicago, Ill. Regular meetings, third Monday of each month, except January, June, July, August and September, Hotel Sherman, Chicago, Ill.

L. & N. Liberalizes Employee Suggestion System

The Louisville & Nashville's Suggestion System, which had been in effect seven years January 1, is being revised and liberalized, in an attempt to secure greater employee interest and participation. The L. & N. Magazine for December reveals that the system was created originally with the thought that employees could offer the management valuable advice in its operation of the road. About 5,000 suggestions have been received since its inception, and 8 per

How's YOUR quota?



...YOUR 4TH WAR LOAN QUOTA

WHETHER your plant meets its quota, or fails, lies largely in *your* hands. Your leadership can put it over—but if you haven't already got a smooth running, hard hitting War Loan Organization at work in your plant, there's not a minute to lose.

Take over the active direction of this drive to meet—and break—your plant's quota. And see to it that every one of your associates, from plant superintendent to foreman, goes all-out for Victory!

To meet your plant's quota means that you'll have to hold your present Pay-Roll Deduction Plan payments at their all-time high—plus such additional amounts as your local War Finance Committee has assigned to you. In most cases this will mean the sale of *at least* one \$100 bond per worker. It means having a fast-cracking sales organization, geared to reach personally and effectively every individual in your plant. And it means hammering right along until you've reached a 100% record in those extra \$100—or better—bonds!

And while you're at it, now's a good time to check those special cases—*growing more numerous every day*—where increased family incomes make possible, and imperative, far greater than usual investment through your plant's Pay-Roll Deduction Plan. Indeed, so common are the cases of two, three, or even more, wage-earners in a single family, that you'll do well to forget having ever heard of '10%' as a reasonable investment. Why, for thousands of these 'multiple-income' families 10% or 15% represents but a paltry fraction of an investment which should be running at 25%, 50%, or more!

After the way you've gone at your wartime production quotas—and topped them every time—you're certainly not going to let anything stand in the way of your plant's breaking its quota for the 4th War Loan! Particularly since all you are being asked to do is to sell your own people the finest investment in the world—their own share in Victory!

LET'S ALL

BACK THE ATTACK!

This space contributed to Victory by

AMERICAN LOCOMOTIVE

This is an official U. S. Treasury advertisement—prepared under auspices of Treasury Department and War Advertising Council

February 5, 1944

40

cent of them have been found worthy of adoption.

The revised system will give each employee proposal a more thorough and sympathetic investigation, and rewards will be more liberal, it is said. For suggestions of merit, as much as 10 per cent of the first year's estimated savings will be granted.

Rise in Air Express Tonnage

Air express, handled by commercial air lines, for the first nine months of 1943, totaled more than 11,074 tons, the air express division of Railway Express Agency reports. Exceeding the weight of air express cargo for the entire year of 1942 by 272 tons, the nine-month figure represents an increase of 45.8 per cent over the similar 1942 period.

"Railway Clerk" Re-Styled

"Railway Clerk", Journal of the Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees, now appears in what it terms "short pants." Page size has been cut from 7¾ by 10¾ in. to 5¾ by 7¾ in. Type styles have been changed accordingly, and the general appearance of the pocket-size package is improved. There are 68 pages in the first copy, 13 of them editorial comment.

Seeks Authority to Buy and Sell Barge Line Stock

G. H. Walker & Company, stock and bond brokers, have asked the Securities and Exchange Commission in Philadelphia, Pa., for permission to purchase from the Atlas Corporation, Jersey City, N. J., 227,000 shares of \$1 par value stock of the Mississippi Valley Barge Line Company at \$2.50 per share and sell them to the public at \$3 per share. A total of 700,000 shares of the barge line's stock is now outstanding among 911 stockholders.

Equipment and Supplies

Big Cut Made in Government's 1944 Locomotive Orders

Altered military requirements have resulted in a substantial reduction in the number of steam locomotives scheduled for 1944 production for such use, the War Production Board announced January 28. Military orders for locomotives weighing 80 tons or more have been cut by 741 units, or about 25 per cent, and for those weighing 50 to 80 tons by 162, or about 35 per cent, the announcement disclosed. However, military requirements for 1944 still call for more than 2,000 large (i. e., over 80 tons) and 300 small steam locomotives, it was explained.

Representatives of the locomotive builders met with government officers in Washington, D. C., last week to consider the effect of the altered program. The W. P. B. statement stressed the point that the curtailment would not mean release of any existing production facilities to meet domestic requirements, since the original pro-

gram had contemplated progressively increased locomotive production in each quarter of 1944. Instead of expanding operations to meet that schedule, the industry will be able to even out its production through the year, it was explained.

The comparative importance of military requirements in the year's locomotive building program is indicated in the contrast of some 2,300 units so scheduled to the 275 of all sizes that have been allocated for production for domestic use during the first three quarters of the year, according to the W. P. B. statement.

Central of Georgia Budget

A \$1,466,620 improvement budget of the Central of Georgia for 1944 has been approved by the Federal District Court at Savannah, Ga. Of the amount, \$925,802 will be spent for additions and betterments, \$234,032 for operating expenses, \$141,093 for depreciation reserve and \$165,693 for salvage. The 1944 budget is increased \$282,480 compared with that of 1943. Two items contributing to the increase are a \$127,043 allotment for the replacing of a truss span over the Cahaba river in Alabama and a \$90,434 increase in the budget for shop machinery and tools.

Chilean State Railways Plan \$5 Million Expenditures

The Chilean State Railways report plans for the expenditure of \$5,000,000 for new equipment, including 1,000 freight cars, rails, heavy replacement machinery, and motor cars for use in the mining section of the north, and \$24,000,000 for electrification equipment, according to the United States Department of Commerce. About \$2,200,000 is to be spent annually for regular maintenance of supplies and equipment.

Santa Fe Improvements

Directors of the Atchison, Topeka & Santa Fe, on January 27, authorized the expenditure of \$11,400,000 for improvements in 1944. This is in addition to a carry-over of more than \$50,000,000 for improvements, equipment and power previously authorized but not yet completed.

SIGNALING

The Union Switch & Signal Company is furnishing 10 sets of two-indication continuous cab signal equipments for installation on 10 type 4-8-4 steam locomotives which are being built by the American Locomotive Co. for the Union Pacific. This equipment is required for operation in the cab signal territory between North Platt, Neb. and Cheyenne, Wyo., and is similar to the cab signal equipment now in service on steam locomotives in use through this territory.

BEHIND BARBED WIRE:—The Institution of Mechanical Engineers of Great Britain, through arrangements made by the War Organization of the British Red Cross and the Order of St. John of Jerusalem, recently held Institute examinations in prisoner-of-war camps in Germany, according to Modern Transport (London). The Institute announced that 34 entrants, or 92 per cent of those who sat for the tests, passed with "an exceptionally high average percentage marking."

Supply Trade

John E. Fontaine has been appointed manager of the Beaumont, Tex., office of the **Graybar Electric Company** to succeed J. P. O'Neill, who died recently after 27 years of continuous service with the company.

The Augusta, Ga., works of the refractories division of the **Babcock & Wilcox Co.** has been awarded a second star to add to its Army-Navy "E" pennant for continued meritorious service on the production front.

W. Horace Holcomb has been appointed to the newly-created office of vice-president-industrial relations for the **Baldwin Locomotive Works** and **James J. Nelson** has been appointed divisional vice-president in charge of the company's Cramp Brass & Iron Foundries division.

John O. Chesley, head of the sales development division of the **Aluminum Company of America**, has been appointed railway sales manager, a position created by the company in order to better serve the rail-



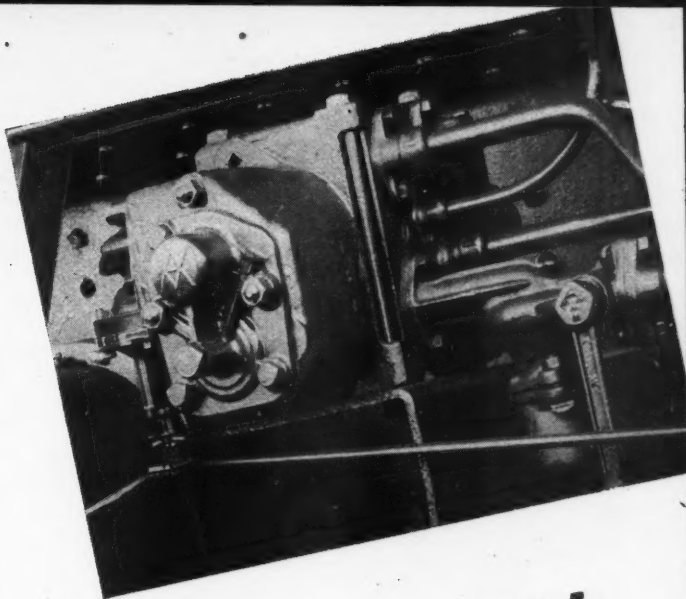
John O. Chesley

way field in meeting the anticipated demand for aluminum in the construction of new equipment after the war. Mr. Chesley was graduated from Brown University with a degree in mechanical engineering in 1911, and joined the Aluminum Company as a sales apprentice. He was appointed manager of the Detroit, Mich., office in 1913 and manager of Pittsburgh, Pa., sales in 1915. Following service as an ensign with the Navy during the world war, he returned to Alcoa in December, 1918 as a mechanical engineer in the sales department. He served as commodity manager in charge of sheet, rod, wire, bar, tubing, and jobbing from 1922 to 1927, and organized and headed the sales development division in June, 1927.

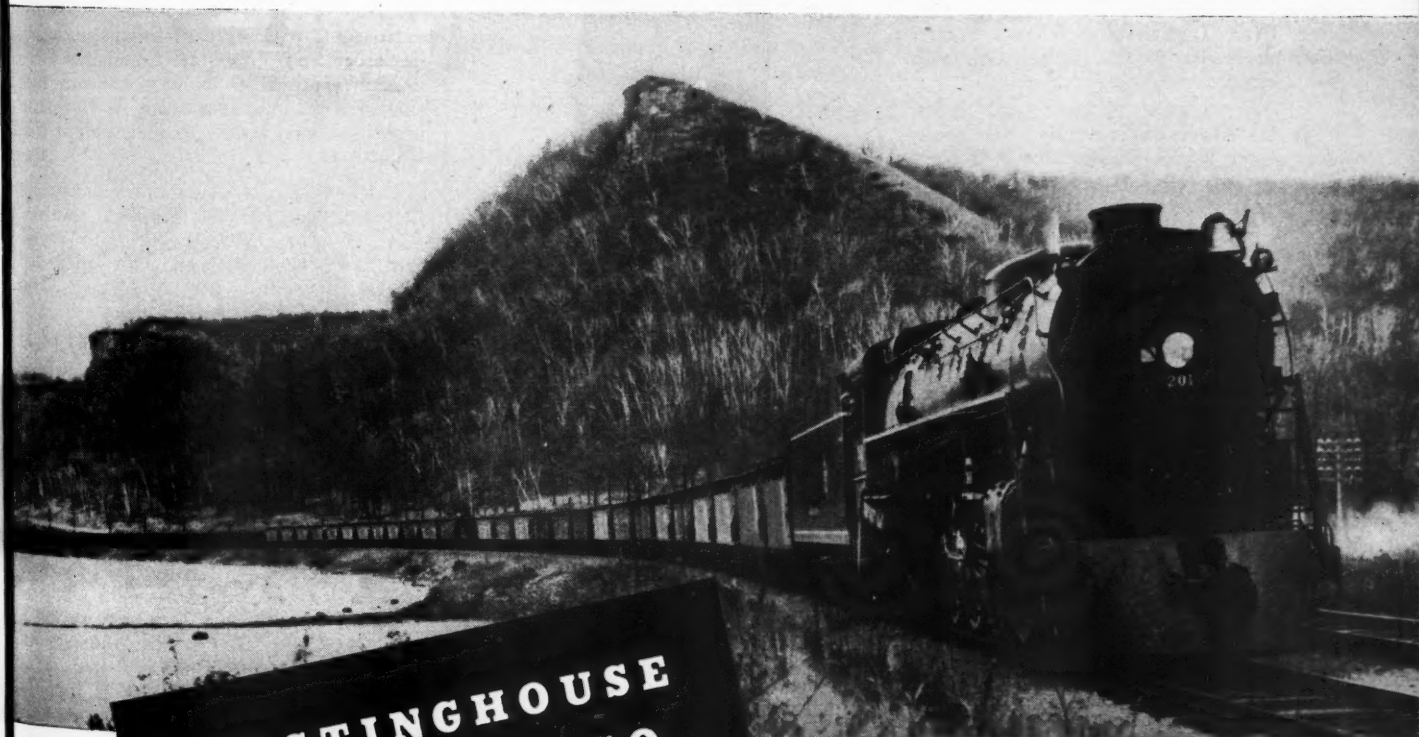
Henry Schreck has been appointed consulting engineer for the Diesel engine division of the **American Locomotive Company**. Mr. Schreck was assistant chief engineer from 1914 to 1916, and chief engineer from 1916-17, for the Fulton Iron Works. He was associated with the Ingersoll-Rand Company as designing engi-

Partners... in PRODUCTION

Of all the facilities required in wartime production, transportation is paramount... An interchange of materials, finished products, and complete equipment must be consistently maintained. Quantity, time-saving, and continuity are the requisites... Adequate and efficient control of train speed, as provided by the AB Brake is playing a part in volume shipments of vital freight, with reliability and dispatch. Smooth handling, made possible by its superior functioning is a distinct asset in safeguarding and expediting traffic movements... AB brake cars are the most serviceable under today's intensive requirements — they spend less time in the shop and more on the road... With the increasing proportion of such cars in service, the marked advantages of better braking become cumulative.



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Brakes**



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AIR BRAKE CO.
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neer from 1918 to 1920, and served as works manager and chief engineer at the Lombard Governor Company from 1920 to 1922. He was head designing engineer of the Combustion Utilities Company in New York from 1922 to 1927, and designing engineer of the Rathborn-Jones Engineering Company in Toledo, Ohio, in 1928. He served as division engineer of

the engineering firm of Jackson and Moreland in Boston, Mass.

Harold E. Weeks has resigned as assistant sales manager of creosote and pitch sales of the Barrett division of the Allied Chemical & Dye Corporation to take charge of sales of creosote and coal-tar chemicals for the **Interlake Chemical Corporation**, Cleveland, Ohio, a subsidiary of the Interlake Iron Corporation, Cleveland, and of the Great Lakes Steel Corporation of Detroit, Mich. Mr. Weeks was associated with the Barrett organization for 27 years, during the last 20 of which he was engaged in creosote sales and for 15 years was assistant sales manager of creosote and pitch sales.

Thomas P. Gorter, who has been elected vice-president of the **Pullman-Standard Car Manufacturing Company**, as reported in the *Railway Age* of January 29, was born in Baltimore, Md., and was educated at Princeton University. He left school in 1917 to enlist in the Army and, upon his discharge in 1919, entered the sales department of the Haskell & Barker Company, Michigan City, Ind., (now part of Pullman-Standard). In 1923 he was transferred to Pullman-Standard's New York sales office and in 1928 to its Washington, D. C. office. In 1942 he was promoted to assistant vice-president, the position he was holding at the time of his recent election.



Henry Schreck

Fairbanks, Morse & Co. in Beloit, Wis., from 1929-30, and was consulting and designing engineer of the Ingersoll-Rand Company in Painted Post, N. Y., from 1931 to 1936. Since 1936, Mr. Schreck has been consulting and designing engineer of Fairbanks, Morse & Co.

Harry H. Lumley, assistant manager of operations in the Chicago district for the **American Steel & Wire Co.**, has been appointed manager of operations to succeed **Fred Ingraham**, who has retired after more than 50 years association with the company.

J. G. Alpersen, executive vice-president of the **Brake Equipment & Supply Co.**, has been elected president to succeed **B. Pratt**, who becomes chairman of the board. **C. J. Smith** has been elected vice-president and **John H. McCartney**, manager of sales, has been elected a director and vice-president.

R. H. Davies has been appointed welding engineer representative in Washington, D. C., for the **Lincoln Electric Company**. Mr. Davies had been associated with Henry J. Kaiser as first plant engineer in the building of several plants at Permanente, Calif. After the construction period he was appointed superintendent and was also in charge of production and plant development.

A. J. Tigges has been appointed manager of consulting engineering for all divisions and subsidiaries of the **Baldwin Locomotive Works**. He also will have charge of the engineering of new products and new applications with reference to postwar plans. Since his graduation, with a degree in electrical engineering, from Massachusetts Institute of Technology in 1923, Mr. Tigges has been associated with

OBITUARY

Noah A. Stancliffe, general counsel and a director of the American Car & Foundry Co. and of the American Locomotive Com-



Noah A. Stancliffe

pany, died January 27, in Washington, D. C. He was 58 years of age. Mr. Stancliffe, who is a graduate of Fordham University and the New York Law School, was a member of the law firm of Hardy, Stancliffe and Hardy, and general counsel for several large corporations including Julius Kayser & Co. and the American Railway Car Institute.

Wm. H. Nelson, partner in Joseph E. Nelson & Sons, construction contractors, Chicago, died in St. Agnes Hospital, Fon du Lac, Wis., on January 2, after an extended illness.

Construction

CANADIAN PACIFIC.—This railroad is planning to expend \$22,700 for construction work at Penticton, B. C., including the erection of an ice storage warehouse, 137 x 40 ft., of frame construction on cedar post foundations.

CHICAGO, ROCK ISLAND & PACIFIC.—This road has applied to the Interstate Commerce Commission for approval of its plan to construct 20.72 miles of main line track in segments between a point near Perlee, Iowa, and Eldon as a part of a project to reduce grades and curvature in a 24.71-mile section of its line. Meanwhile a contract amounting to more than \$110,000 has been awarded **Alexander & Repass**, Des Moines, Iowa, for the construction of nine reinforced concrete boxes in connection with the project.

MISSOURI PACIFIC.—This road has awarded a contract, amounting to \$61,095, to **H. B. Deal & Co. Inc.**, St. Louis, Mo., for the construction of freight Diesel facilities at Dupo, Ill., to include a 200-ft. locomotive inspection pit, an elevated wooden service platform, a 26-ft. by 66-ft. one-story wood frame building, a fuel-oil tank and truck release tracks.

MISSOURI PACIFIC.—This road has awarded a contract to the **William A. Smith Construction Company**, Houston, Tex., for grading and track work in connection with the construction of a track extending from the Missouri Pacific main track at Iuka, Kan., to U. S. government tracks at Pratt Army air base. The work will include approximately 9,000 cu. yd. of excavation, laying of 10,500 ft. of track and the construction of four timber trestles, at an estimated cost of \$42,500.

NORFOLK & WESTERN.—This company has applied for Interstate Commerce Commission approval of its proposed construction of a 2.2-mile spur from its Buchanan branch to gain access to undeveloped coal lands.

PENNSYLVANIA.—A contract amounting to more than \$200,000 has been awarded **J. C. O'Connor & Sons, Inc.**, Ft. Wayne, Ind., for the construction of additional tracks and facilities at Bay Junction yard, Sandusky, Ohio.

WAR DEPARTMENT.—The U. S. Engineers office, Denison, Tex., has awarded a contract, amounting to more than \$47,000, to **Campbell & Kay**, Tyler, Tex., for the construction of a railroad spur and fence in Texas.

USO CANTEENS.—With the opening of the North Philadelphia station lounge late in December, all three major Pennsylvania stations in Philadelphia are now equipped with USO facilities. The new lounge is open 24 hr. daily, and is under the direction of the Travelers Aid Society and staffed by members of the Women's Aid of the Pennsylvania Railroad. There are other lounges and canteens in the Broad street and 30th street stations. In the Broad street building, the railroad has provided a club and sleeping accommodations for 200 officers.



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Financial

ATCHISON, TOPEKA & SANTA FE.—New Director and Executive Committeeman Elected.—Norman Chandler, president and general manager of the Los Angeles Times, Los Angeles, Cal., and John L. Cleveland, president of the Guaranty Trust Company, New York, were elected directors of the Atchison, Topeka and Santa Fe, at a meeting of the board of directors in Chicago on January 27. Mr. Chandler succeeds Myer Hurley, who died recently, and Mr. Cleveland replaces William C. Potter, who has retired from the board. Fred G. Gurley, vice-president of the Santa Fe, was elected to the executive committee at the same meeting.

CENTRAL OF GEORGIA.—Reorganization Plan.—This road's trustee, M. P. Callaway, has filed with the federal district court and the Interstate Commerce Commission a plan for its reorganization which would result in a reduction of annual charges before common dividends from \$3,364,022 to \$2,564,475, and a reduction of total capitalization from \$112,429,905 to \$84,412,798. The plan makes no provision for claims of unsecured creditors or for the old company's stock, all of which was held directly or indirectly by the Illinois Central. Other claims, amounting principal and interest to \$86,167,989, are allocated cash and securities totaling \$85,527,777.

The plan provides for the following new security issues: \$14,000,000 of 4 per cent first mortgage bonds, \$16,000,000 of 4½ per cent income bonds, \$22,229,503 of 5 per cent preferred stock, and \$29,000,000 of common stock. The new and old capital structures are compared in the table below:

	Old company	New company
Undisturbed equipment obligations	\$3,183,295	\$3,183,295
Other fixed interest debt ..	55,219,197	14,000,000
Unpaid interest on fixed debt	27,326,213	.....
Contingent interest debt ..	269,000	16,000,000
Total indebtedness	85,997,705	33,183,295
Preferred stock .....	.....	22,229,503
Common stock (par \$100) ..	20,000,000	29,000,000
Leased line stock	6,432,200	.....
Total stock	26,432,200	51,229,503
Total capitalization	112,429,905	84,412,798

Under this plan annual changes, as compared with the old company's liabilities, are shown as follows:

	Old company	New company
Equipment obligations ...	\$73,927	\$58,000
Fixed mortgage interest...	2,810,367	560,000
Contingent interest	13,450	720,000
Leased line rentals	328,278	.....
Savannah terminal rentals ..	138,000	.....
1st mortgage sinking fund .....	.....	35,000
Income mortgage sinking fund .....	.....	80,000
Preferred dividend .....	.....	1,111,475
Charges before common dividends	3,364,022	2,564,475

CHICAGO, BURLINGTON & QUINCY.—Promissory Notes.—Division 4 of the Interstate Commerce Commission has authorized this company to issue \$7,900,800 of promissory notes in evidence of, but not in payment for, the purchase of 16 5,400-h.p. diesel-electric freight locomotives ordered from the Electro-Motive Division of General Motors Corp. under a conditional

sale arrangement, the contract and notes having been sold on a 2 per cent basis to the First National Bank of Chicago and others.

The report points out that this company has expended \$4,167,000 from cash for equipment in the past 2 years, in addition to retiring some \$27,000,000 of 3½ and 4 per cent fixed-interest bonds, that it desires to build up its cash position to meet obligations maturing in 1949, and that the transaction now approved is designed to facilitate this financing.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—Equipment Trust.—This road has applied to the Interstate Commerce Commission for authority to assume liability for \$7,260,000 of Series X equipment trust certificates, to be sold through competitive bidding, the proceeds to be employed to finance to the extent of 75 per cent of cost the purchase of the following equipment: 10 4-8-4 steam locomotives from the American Locomotive Co. at a total cost of \$1,942,300; 6 5,400-h.p. Diesel-electric freight locomotives from the Electro-Motive Division of General Motors Corp. at a total cost of \$3,054,000; 1 200-ton wrecking crane, not yet ordered; and 1,000 40 ft. 6 in. box cars, 500 50 ft. 6 in. box cars, 35 65 ft. 6 in. gondolas, and 25 cabooses, all to be built in the road's shops, at a total cost of \$4,609,000.

CHICAGO & NORTH WESTERN.—New Trustee.—Division 4 of the Interstate Commerce Commission has ratified the appointment of Claude A. Roth as trustee of this road, succeeding the late Charles M. Thomson.

DELAWARE, LACKAWANNA & WESTERN.—Lackawanna of N. J. Merger.—Under a plan of merger agreed to by conferees representing the D. L. & W. and its leased road, the Lackawanna of New Jersey, stockholders of the L. of N. J. would receive 75 per cent of the par value of their stock in 4 per cent fixed interest series A bonds and 25 per cent in 4 per cent contingent interest series B bonds. Contingent interest will be cumulative up to three years. The bonds will be secured by a first mortgage on the Lackawanna of New Jersey's properties and will mature in 50 years.

DELAWARE, LACKAWANNA & WESTERN.—Morris & Essex Merger.—Under the proposed merger agreement between the Delaware, Lackawanna & Western and its leased line, the Morris & Essex, holders of \$10,000,000 of M. & E. \$50 par value stock will receive in exchange D. L. & W. 100-year collateral trust bonds bearing 4 per cent fixed interest and 2 per cent contingent interest. Contingent interest and a 1¾ per cent sinking fund would not be payable until deferred payments equal one-half of the federal income taxes assessed against the Morris & Essex on the date of the merger. The purpose of the exchange is to settle litigation over liability for federal income taxes on leased rentals paid.

MINNEAPOLIS & ST. LOUIS.—Clears Bonded Debt.—The Minneapolis & St. Louis has announced that the railroad's entire bonded indebtedness will be eliminated on May 1, with the redemption at par value and accrued interest of its out-

standing \$2,015,000 general mortgage 4 per cent income bonds.

NASHVILLE, CHATTANOOGA & ST. LOUIS.—New Directors Elected.—Vance J. Alexander, president of the Union Planters National Bank & Trust Co., Memphis, Tenn., has been elected a director of the Nashville, Chattanooga & St. Louis, succeeding John R. Flippin, who has resigned to serve with the Office of Defense Transportation.

PENNROAD CORPORATION.—Sells Detroit, Toledo & Ironton Holdings.—The Pennroad has sold its entire remaining holdings of \$5,000,000 par value of the first mortgage 4 per cent bonds due 1967 of the Detroit, Toledo & Ironton to a group of investment bankers. It is reported that the banking group intends to resell the bonds to a limited number of institutions and dealers.

PENNSYLVANIA.—Bonds of United New Jersey.—This road has applied to the Interstate Commerce Commission for authority to assume liability with respect to \$5,646,000 of general mortgage 3 per cent bonds of the United New Jersey Railroad & Canal Co., which the latter in the same application seeks authority to issue and deliver to the P. R. R. The new issue, dated March 1, 1944, and maturing March 1, 1984, would provide for the retirement of a like amount of 4 per cent general mortgage gold bonds maturing March 1.

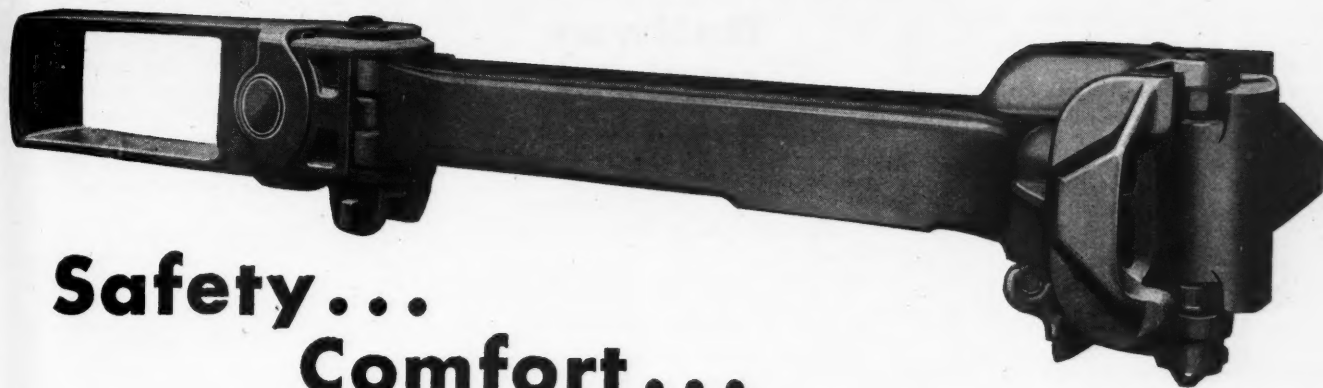
PENNSYLVANIA.—Equipment Trust.—Division 4 of the Interstate Commerce Commission has authorized this company to assume liability for \$4,155,000 of series O 2¼ per cent equipment trust certificates, sold at 100.739 to Halsey, Stuart & Co. in connection with the purchase of 18 steam locomotives and 500 box cars.

The division's report points out that in the years 1938 to 1943, inclusive, the Pennsylvania system's funded debt in the hands of the public was reduced \$131,781,611, or 11.8 per cent, while guaranteed stocks in the hands of the public were reduced by \$28,234,557. At the same time the property investment was increased by \$175,560,487. During 1944 long term debt in the amount of \$13,280,000 will mature.

PERE MARQUETTE.—Equipment Trust.—Division 4 of the Interstate Commerce Commission has authorized this company to assume liability for \$2,220,000 of 2¼ per cent equipment trust certificates of 1944, sold at 99.69 per cent to Halsey, Stuart & Co. in connection with the purchase of 12 steam locomotives, 100 gondola cars and 100 flat cars.

The division's report points out that this road, in the 15-month period ending at the close of 1943, reduced its mortgage debt more than 13 per cent, having retired \$8,491,700 of its first mortgage bonds. In the same period equipment obligations were reduced \$1,160,352.

SEABOARD AIR LINE.—Successor Company Chartered.—As a formal step in the ultimate reorganization of the Seaboard Air Line, the committee recently appointed to handle the financial reorganization of the railroad has obtained a charter from the Virginia State Corporation Commission to operate as the Seaboard Railway



Safety.... Comfort.... Economy....

These three will be essential features of railway passenger equipment to qualify for postwar transportation. A. A. R. Tightlock Couplers go far toward assuring these essentials.

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Eliminate slack in coupler contour.

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Interlocking feature prevents telescoping and turning over of cars.

Improved anti-creep arrangement, and A. A. R. No. 6 operating mechanism prevents train separation.

Will couple with present standard and M. C. B. type couplers, and when so coupled provides substantial reduction in contour slack.

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Company, a new corporation which will take over all Seaboard Air Line records. The corporation will have home offices in Norfolk, Va. Only nominal capitalization was listed for the new corporation—a maximum of 50 shares of common stock and a minimum of three.

A hearing has been set for February 8 by the United States district court on a petition by the reorganization managers for authority to purchase \$1,750,000 of Georgia, Florida & Alabama first and refunding 6 per cent bonds of 1952 at \$750 per \$1,000 bond.

Average Prices Stocks and Bonds

	Feb. 1	Last week	Last year
Average price of 20 representative railway stocks..	37.75	37.51	30.93
Average price of 20 representative railway bonds..	84.58	83.65	71.75

Dividends Declared

Cleveland & Pittsburgh.—Special guaranteed, 50¢; 7% guaranteed, 87½¢; both quarterly, both payable March 3 to holders of record February 10.

Michigan Central.—\$25.00, semi-annually, payable January 31 to holders of record January 21.

Piedmont & Northern.—50¢; extra, \$1.00; both January 20 to holders of record January 5.

Abandonments

CHICAGO & NORTH WESTERN.—Upon this road's request, its application for authority to abandon a branch from Blunt, S. D., to Onida, 14.4 miles, has been dismissed.

CHICAGO, ROCK ISLAND & PACIFIC.—This road has applied to the Interstate Commerce Commission for authority to abandon certain segments of its line between a point near Perlee, Iowa, and Eldon, in connection with a 24.71-mile line revision designed to reduce grades and curvature. Altogether, 22.67 miles of track will be removed.

COLORADO & SOUTH EASTERN.—Division 4 of the Interstate Commerce Commission has authorized this road to abandon a 0.716-mile connecting track at Chandler Junction, Colo.

MISSOURI PACIFIC.—In a proposed report, Examiner J. S. Prichard has recommended that the Interstate Commerce Commission not approve the application of this road's subsidiary, the Missouri Pacific in Nebraska, for authority to abandon a line from a point near Talmage, Neb., to a point near Weeping Water, about 25 miles, on the ground that "the record is not convincing that continued operation of the branch would be a burden."

NORTHERN PACIFIC.—This company's application for authority to abandon two branch lines, one from Rush City, Minn., to Grantsburg, Wis., 17.05 miles, and one from Wyoming, Minn., to Taylors Falls, 20.6 miles, has been denied by Division 4 of the Interstate Commerce Commission, without prejudice to a renewal of the application after the war.

PERE MARQUETTE.—This road has filed with the Interstate Commerce Commission separate applications seeking authority to abandon two branch lines in Michigan. They are the 13-mile line between Remus and Weidman, and the 16.6-mile line between Clare and Harrison.

Railway Officers

EXECUTIVE

Warren Robert Elsey, assistant to vice-president of the Pennsylvania, has been appointed assistant vice-president in charge of real estate, purchases and insurance. He succeeds Frederick W. Hankins, whose retirement was announced in the *Railway Age* of January 15. Mr. Elsey, who was born at Pittsburgh, Pa., on April 1, 1892, was graduated from the Carnegie Institute of Technology in 1910. He entered railroad service in September, 1911, as a draftsman of the Pennsylvania at Pittsburgh, with subsequent extensive experi-



Warren Robert Elsey

ence in railroad shop work at various points. He became master mechanic at Baltimore, Md., in February, 1928. The following year Mr. Elsey was advanced to superintendent of floating equipment at New York, and in October, 1936, became mechanical engineer. He was appointed general superintendent of motive power of the eastern region in 1941, being transferred to the department of real estate, purchases and insurance in July of the next year as assistant to the vice-president. He continued in this capacity until his present promotion to the position of vice-president in the same department.

FINANCIAL, LEGAL AND ACCOUNTING

William J. Heckmann, assistant general claims attorney of the Illinois Central, with headquarters at Chicago, has been promoted to general claims attorney, with the same headquarters, succeeding Philip M. Gatch, whose death on January 20 was reported in the *Railway Age* of January 29.

E. A. Kaier, assistant general solicitor of the Pennsylvania with headquarters at Chicago, has been appointed assistant general counsel of that road with headquarters

at Pittsburgh, Pa. Mr. Kaier succeeds S. G. Cramp, who has retired from that position. Mr. Cramp was born at Pittsburgh and entered railroad service in 1891, later withdrawing to study law. In 1900 he returned as a conveyancer, and was engaged in real estate work until 1920 when he was appointed assistant general solicitor at Pittsburgh. He was promoted to assistant general counsel on May 1, 1928, and maintained this position until his recent retirement.

OPERATING

H. A. Hopkins has been appointed trainmaster of the Eastern division of the Missouri Pacific, with headquarters at Jefferson City, Mo.

L. E. McCadden has been appointed trainmaster of the Southern Pacific, with headquarters at Carrizozo, N. M., and Edward A. Keating has been appointed terminal trainmaster, with headquarters at Richmond, Tex.

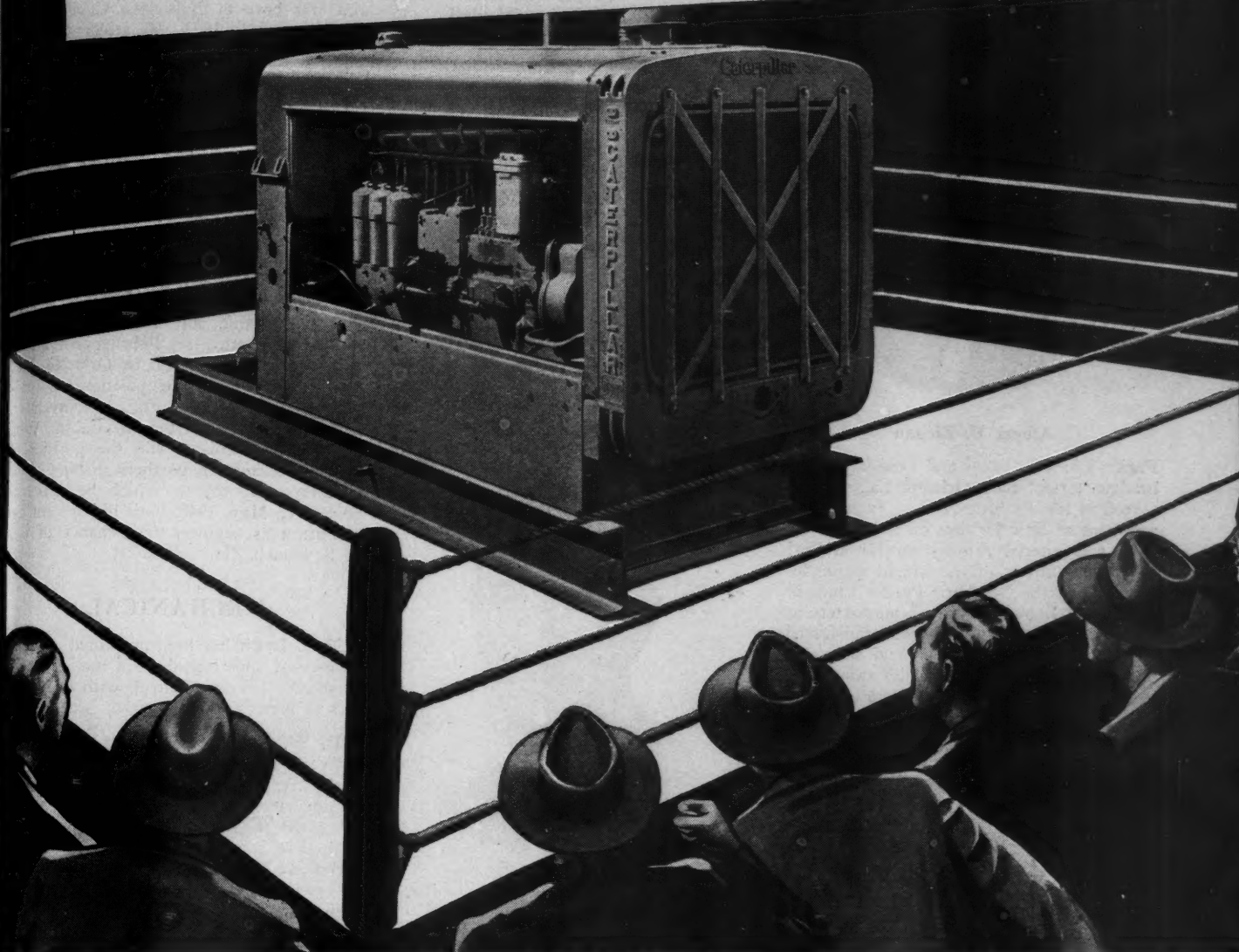
Guy Newton Curley, whose appointment as superintendent of the Farnham, Que., division of the Canadian Pacific was announced in the *Railway Age* of January 15, entered the service of that road in May, 1916, as stenographer in the general manager's office, Montreal, Que. In January, 1918, he became clerk-accountant at Farnham, leaving in April for military service with an engineering battalion. In November of the same year, Mr. Curley returned to serve successively as clerk to the superintendent at Farnham, assistant chief clerk, clerk to the general superintendent at Montreal, and clerk in the mechanical department. In January, 1928, he was named chief clerk to the Farnham division superintendent, a position which he held until September, 1934, when he was transferred to the Park Avenue Station, Montreal. From 1937 until 1941 Mr. Curley was



Guy Newton Curley

variously traveling car service agent at Montreal and Toronto, Ont.; acting assistant superintendent at Woodstock, N. B. and Brownsville Junction, Me.; and assistant superintendent at Toronto. He was named assistant superintendent at Brownsville Junction, Me., in July, 1941, acting in the

BARE-KNUCKLE CHAMPION



THE "Caterpillar" Diesel Engine is all-time bare-knuckle champion in its class. It packs more power and can take more punishment than any other heavy-duty engine of its size.

No other Diesel built can match the simplicity of this engine—important now, when skilled operators are scarce. It's as nearly fool-proof as an engine can be made. There are only three simple operating adjustments—valves, fan-belt and water pump.

From fan to flywheel, the whole engine is "Caterpillar"-built. The fuel system is typical of sound "Caterpillar" design and construction. It requires no adjustments whatever. It can burn any type of fuel that's handy, from cleaned crude oil out of a pipeline to high-octane gasoline. And its fuel economy is famous the world over.

"Caterpillar" Diesel Engines are built for full-load, full-time work—

for more productive hours on the job and longer life. They have positive protection against dust, mud and water.

Ease of servicing is a big factor in their favor. Every part that is subject to wear can be replaced with a minimum of labor and expense.

Because "Caterpillar" Diesel Engines are used to power so many different types of equipment—such as excavators, compressors, crushers, locomotives, gravel plants and rollers—it is possible to standardize on them and thus reduce service and operating costs. And they can be hooked up in multiple installations with no loss in

efficiency and definite advantages in work output.

Right now, "Caterpillar" Diesels are contributing millions of rugged horsepower to winning the war. With the coming of victory, our full production will once more be available for peacetime jobs. In the meantime, your "Caterpillar" dealer is fully equipped to keep your present machines in running order. Call on him for counsel and service. And if you are qualified to get a new "Caterpillar" Diesel, he will explain how you can apply for it.

CATERPILLAR TRACTOR CO., PEORIA, ILL.

CATERPILLAR DIESEL

REG. U.S. PAT. OFF.



TO WIN THE WAR: WORK—FIGHT—BUY U. S. WAR BONDS!

capacity until his recent appointment as superintendent of the Farnham division.

TRAFFIC

Albert C. Ziegan, whose promotion to general passenger agent of the Southern



Albert C. Ziegan

Pacific Lines in Texas and Louisiana, with headquarters at New Orleans, La., was reported in the *Railway Age* of January 22, was born at New Orleans on December 16, 1882, and entered railway service in 1905 as a stenographer of the freight claim department of the Southern Pacific Lines in Texas and Louisiana, with headquarters at New Orleans. In 1907 he was transferred to the passenger department and six years later he was promoted to chief rate clerk, subsequently serving as chief clerk and division passenger agent, with the same headquarters. In 1937 Mr. Ziegan was advanced to district passenger agent, holding that position until his new appointment.

George M. Wagner, whose promotion to general passenger agent of the Missouri-Kansas-Texas, with headquarters at St. Louis, Mo., was reported in the *Railway*



George M. Wagner

Age of January 22, was born at St. Louis on December 29, 1893, and received his higher education at the St. Louis College of Law and Finance. He entered railway service on January 1, 1915, as stenographer and secretary of the passenger traffic department of the M-K-T at St. Louis, and four years later he was appointed adver-

tising clerk, with the same headquarters. On March 1, 1920, he was advanced to station passenger agent at Kansas City, Mo., and in the same year he was appointed rate and transportation clerk, with headquarters at St. Louis. On April 16, 1928, Mr. Wagner was promoted to city passenger agent, with the same headquarters, later serving as chief rate clerk and chief clerk. On August 1, 1930, Mr. Wagner was advanced to assistant general passenger agent with the same headquarters, holding that position until his new appointment, effective December 31.

Elmer A. Bohmeyer, whose promotion to assistant passenger traffic manager of the Missouri-Kansas-Texas, with headquarters at St. Louis, Mo., was reported in the *Railway Age* of January 22, was born at St. Louis on October 31, 1905, and entered railway service on May 3, 1920, as a stenographer of the general passenger department of the M-K-T, subsequently serving as secretary of the general passenger agent, rate clerk and station passenger agent at St. Louis. In September, 1931, Mr. Bohmeyer was promoted to traveling passenger agent, with headquarters at Kansas City, Mo., and one year later he was ad-



Elmer A. Bohmeyer

vanced to city passenger agent, with headquarters at New York. On December 1, 1934, he was promoted to division passenger agent at St. Louis, holding that position until his new appointment.

D. T. Daily has been appointed to the position of general industrial agent of the Seaboard Air Line, not of the Southern, as was incorrectly announced in the *Railway Age* of January 22.

O. K. Daly, general agent of the Grand Trunk Western, with headquarters at Birmingham, Ala., has been transferred to Seattle, Wash., succeeding **F. L. Norman**, who has retired after 36 years of service.

Edward Burnyeat Robb, assistant general freight agent of the Canadian National, has been appointed general freight agent, Atlantic region, with headquarters at Moncton, N. B. Mr. Robb's former position has been abolished.

ENGINEERING & SIGNALING

L. P. O. Exley, chief engineer of the Gulf, Mobile & Ohio, with headquarters

at Mobile, Ala., has been granted a six-months leave of absence.

Frank Leslie Etchison, general roadmaster, northern district of the northern division, Atlantic Coast Line, has been appointed engineer maintenance of way with headquarters at Savannah, Ga. Mr. Etchison was born at Baltimore County, Md., on February 27, 1902. He attended George Washington University at Washington, D. C., and entered railroad service in the roadway department of the Baltimore & Ohio, serving as trackman, relief foreman, clerk and assistant to supervisor in Gaithersburg, Md. He joined the Atlantic Coast Line as a roadman at Ludowici, Ga., in April, 1924, and in May, 1925, was promoted to instrumentman. In August of the same year he was transferred to the Charleston & Western Carolina for grade revision work. He was sent to Monticello, Fla., as resident engineer in June, 1926, and assumed the same post at Perry, Fla., the following month. In February, 1927, he became resident engineer at Orlando, Fla., being promoted to the position of roadmaster at Live Oak, Fla., in November, 1927, and at Charleston, S. C., in April, 1929. Mr. Etchison held the position of general roadmaster, northern district of the northern division, to which he was appointed in May, 1940, until his present appointment as engineer maintenance of way at Savannah, Ga.

MECHANICAL

T. J. Lyon has been appointed assistant to general superintendent of motive power of the New York Central, with headquarters at New York.

R. W. Retterer, assistant superintendent of equipment of the Cleveland, Cincinnati, Chicago & St. Louis (Big Four), with headquarters at Indianapolis, Ind., has been promoted to superintendent of equipment, with the same headquarters, succeeding **Fred K. Murphy**, who has retired after 51 years service. **George W. Birk**, assistant to the superintendent of motive power and rolling stock of the New York Central, with headquarters at New York, has been advanced to assistant superintendent of equipment of the Big Four, with headquarters at Indianapolis, replacing Mr. Retterer.

OBITUARY

Dr. Frank Haigh Dixon, one of the country's best-known educators in transportation, died on January 28 at Princeton, N. J. He was born on October 8, 1869, at Winona, Minn., and received a Ph.B. degree in 1892 and a Ph.D. in 1895, both from the University of Michigan. Dr. Dixon served as a consultant for the Interstate Commerce Commission in 1907 and 1908, and from 1910 until 1918 was chief statistician of the Bureau of Railway Economics. In addition to a career of teaching economics at various universities, Dr. Dixon is the author of several volumes on railroads. These include "State Railroad Control"; "War Administration of Railroads in U. S. and Great Britain" (joint author); and "Railroads and Government, Their Relations in the United States."